STR-V4

US Model
Canadian Model

FM STEREO/FM-AM RECEIVER

SPECIFICATIONS

GENERAL

Power Requirements:	120 V, 60 Hz
Power Consumption:	105 W (US model) 170 W (Canadian model)
AC Outlets:	1 switched, 100 W 1 unswitched, 300 W
Dimensions:	Approx. 500 (w) x 145 (h) x 395 (d) mm $19^3/_4$ (w) x $5^3/_4$ (h) x $15^1/_2$ (d) inches
Weight:	Approx. 13.5 kg, 29 lb 12 oz (net) Approx. 15.6 kg, 34 lb 6 oz (in shipping carton)

FM TUNER SECTION

Antenna:	300 Ω balanced 75 Ω unbalanced
Frequency Range:	87.5 MHz – 108 MHz
Intermediate Frequency:	10.7 MHz
Sensitivity at 50 dB Quieting:	16.4 dBf, 3.6 μV (11.2 dB) (MONO) 37.9 dBf, 43 μV (32.5 dB) (STEREO)
Usable Sensitivity:	10.8 dBf, 1.9 μV (5.5 dB)
S/N Ratio:	72 dB (MONO) 68 dB (STEREO)

Harmonic Distortion:

	MONO	STEREO
100 Hz	0.15 %	0.25 %
1 kHz	0.15 %	0.25 %
10 kHz	0.2 %	0.5 %

IM Distortion:

MONO	STEREO
0.15 %	0.25 %

Separation: 40 dB at 100 Hz
47 dB at 1 kHz
35 dB at 10 kHz
32 dB at 50 Hz – 15 kHz

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND ⚠ MARK ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ !

LES COMPOSANTS IDENTIFIÉS PAR UN TRAMÉ ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SONY®

SERVICE MANUAL

Frequency Response: 30 Hz – 15 kHz $^{+1}_{-2}$ dB

Sensitivity: 60 dB at 400 kHz

Capture Ratio: 1.0 dB

AM Suppression Ratio: 55 dB

Image Response Ratio: 45 dB

IF Response Ratio: 95 dB

Spurious Response Ratio: 75 dB

RF Intermodulation: 60 dB

Sub-carrier Product Ratio: 40 dB

Muting Threshold: Approx. 5 μV

AM TUNER SECTION

Antenna: Built-in ferrite-rod antenna
External antenna terminal

Frequency Range: 530 kHz – 1,605 kHz

Intermediate Frequency: 455 kHz

Usable Sensitivity: 200 μV/m (46 dB/m), built-in antenna
100 μV (40 dB), external antenna
at 1,000 kHz

S/N Ratio: 50 dB at 50 mV/m

Harmonic Distortion: 0.5 % at 50 mV/m, 400 Hz

Selectivity: 35 dB

Image Response Ratio: 40 dB at 1,000 Hz

IF Response Ratio: 40 dB at 1,000 Hz

AUDIO AMPLIFIER SECTION

Power Output and Total Harmonic Distortion: With 8 Ω loads, both channels driven, from 20 – 20,000 Hz; rated 55 W per channel minimum RMS power, with no more than 0.1 % total harmonic distortion from 250 mW to rated output.

Damping Factor: 40 at 1 kHz, 8 Ω

IM Distortion: (60 Hz : 7 kHz = 4 : 1) Less than 0.1 % at rated output
Less than 0.07 % at 1 W output

Residual Noise: Less than 0.3 mV (A-network)

Frequency Response: PHONO
RIAA equalization curve ±0.8 dB
TAPE 1, 2
5 Hz – 50 kHz $^{+0.5}_{-2}$ dB

Inputs: Measured with rated output power into 8 Ω loads (both channels driven simultaneously) at 1 kHz.

	Sensitivity	Impedance	S/N	Weighting Network
PHONO	2.5 mV (−50 dB)	50 kΩ	75 dB	A
TAPE 1, 2	150 mV (−14.5 dB)	50 kΩ	100 dB	A

Outputs: With rated input, FM 30 % modulation, speaker rated output.

	Voltage	Impedance
REC OUT 1, 2	150 mV (−14.5 dB)	4.7 kΩ
HEADPHONES	Accepts 8 Ω to 10 kΩ headphones	
SPEAKER	8 Ω to 16 Ω speakers are suitable	

Tone Controls: BASS ±10 dB at 100 Hz
TREBLE ±10 dB at 10 kHz

High Filter: 6 dB/oct. above 6 kHz

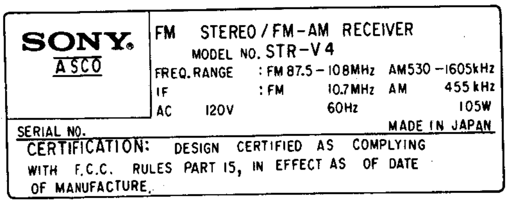
Loudness Control (att. 30 dB): +10 dB at 50 Hz
+3 dB at 10 kHz

◆ ◆ ◆

MODEL IDENTIFICATION

– Specification Label –

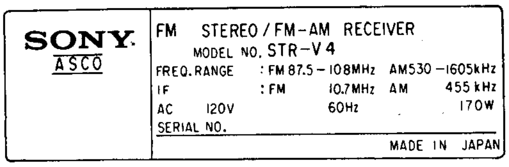
US model



SONY
ASCO

FM STEREO / FM-AM RECEIVER
MODEL NO. STR-V4
FREQ. RANGE : FM 87.5 – 108MHz AM530 – 1605kHz
IF : FM 10.7MHz AM 455 kHz
AC 120V 60Hz 105W
SERIAL NO. MADE IN JAPAN
CERTIFICATION: DESIGN CERTIFIED AS COMPLYING WITH F.C.C. RULES PART 15, IN EFFECT AS OF DATE OF MANUFACTURE.

Canadian model

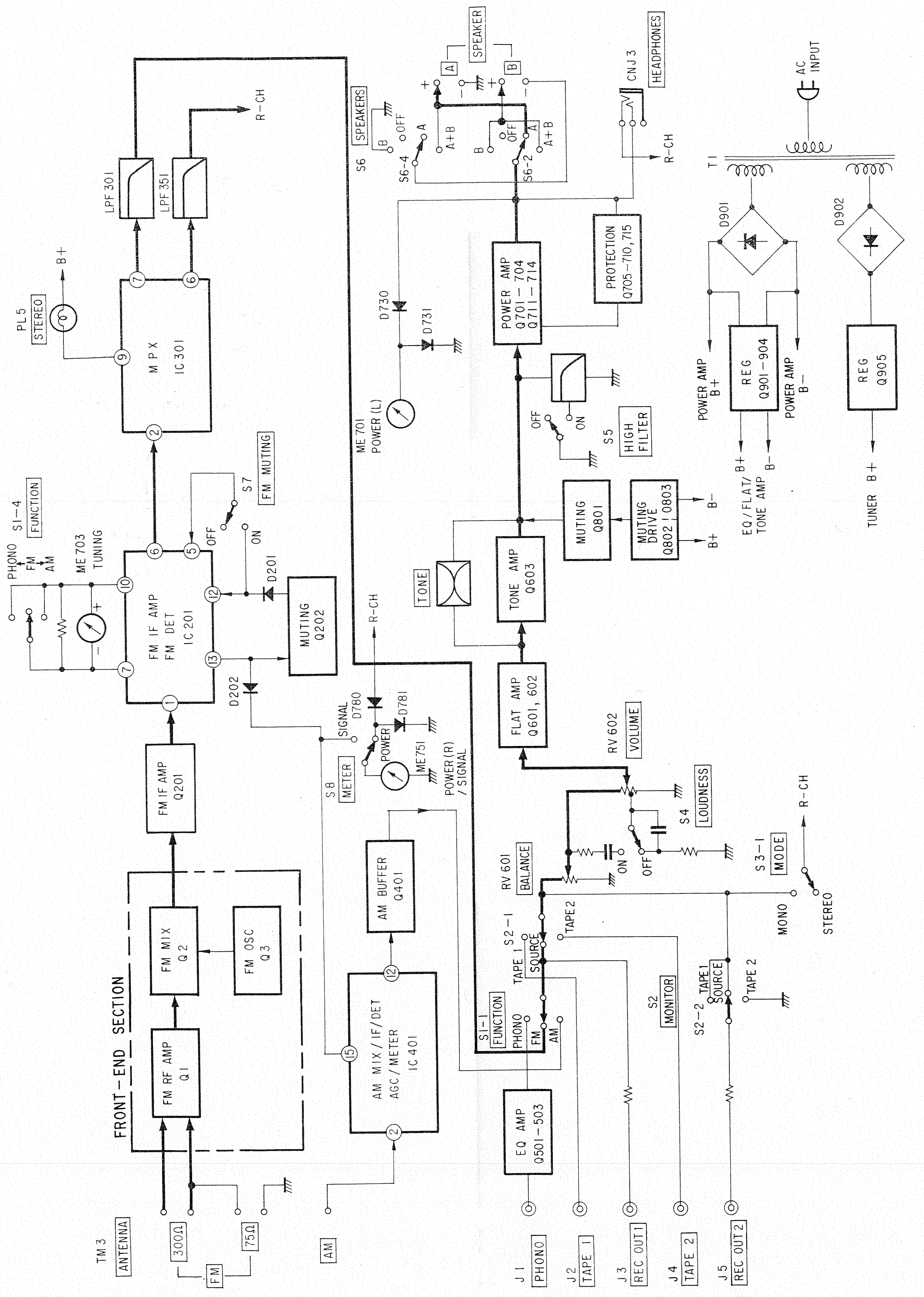


SONY
ASCO

FM STEREO / FM-AM RECEIVER
MODEL NO. STR-V4
FREQ. RANGE : FM 87.5 – 108MHz AM530 – 1605kHz
IF : FM 10.7MHz AM 455 kHz
AC 120V 60Hz 170W
SERIAL NO.
MADE IN JAPAN

SECTION 1

BLOCK DIAGRAM


TM3 ANTENNA
300Ω
75Ω
FM
AM
FRONT-END SECTION
FM RF AMP Q1
FM MIX Q2
FM OSC Q3
FM IF AMP Q201
FM IF AMP FM DET IC201
MUTING Q202
D201
D202
S7 FM MUTING
OFF
ON
ME703 TUNING
PHONO FM AM
S1-4 FUNCTION
M P X IC301
PL5 STEREO
B+
LPF 301
LPF 351
R-CH
AM MIX/IF/DET AGC/METER IC401
AM BUFFER Q401
S8 METER
SIGNAL
POWER
D780
D781
ME751 POWER(R)/SIGNAL
ME701 POWER (L)
D730
D731
S1-1 FUNCTION
PHONO
FM
AM
EQ AMP Q501-503
S2-1 SOURCE
TAPE 1
TAPE 2
S2 MONITOR
S2-2 SOURCE
S3-1 MODE
MONO
STEREO
RV601 BALANCE
RV602 VOLUME
S4 LOUDNESS
FLAT AMP Q601, 602
TONE AMP Q603
TONE
MUTING Q801
MUTING DRIVE Q802, 0803
S5 HIGH FILTER
POWER AMP Q701-704 Q711-714
PROTECTION Q705-710, 715
S6 SPEAKERS
S6-4
S6-2
SPEAKER
A
B
A+B
OFF
CNJ3 HEADPHONES
AC INPUT
T1
D901
D902
REG Q901-904
REG Q905
POWER AMP B+
POWER AMP B-
EQ/FLAT/TONE AMP B+ B-
TUNER B+
J1 PHONO
J2 TAPE 1
J3 REC OUT1
J4 TAPE 2
J5 REC OUT2

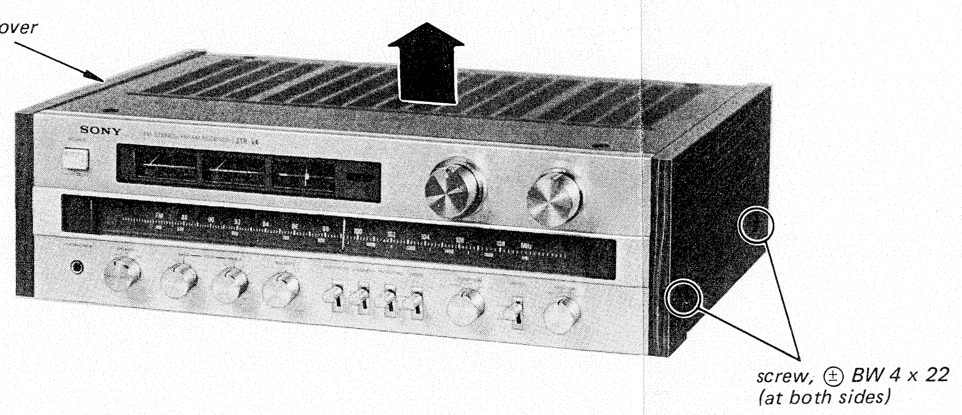
SECTION 2

DISASSEMBLY

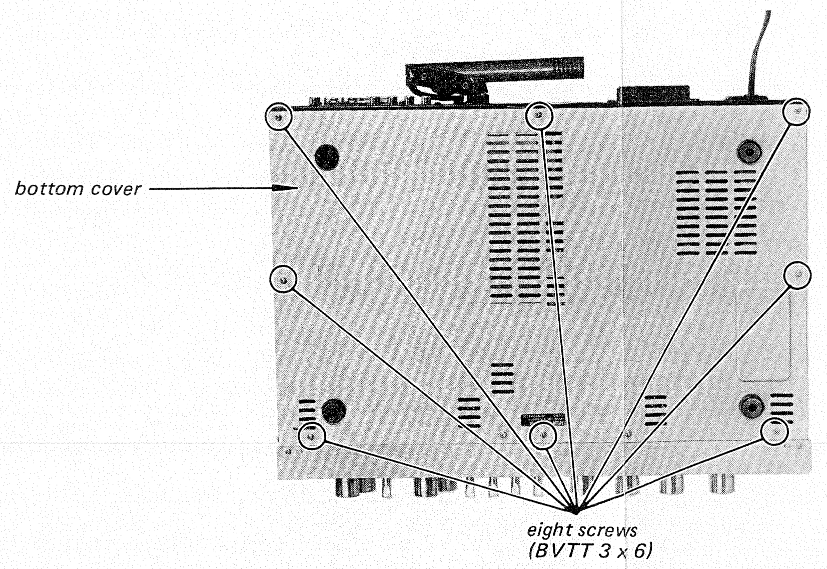
2-1. REMOVAL

- Follow the disassembly procedure in the numerical order given.

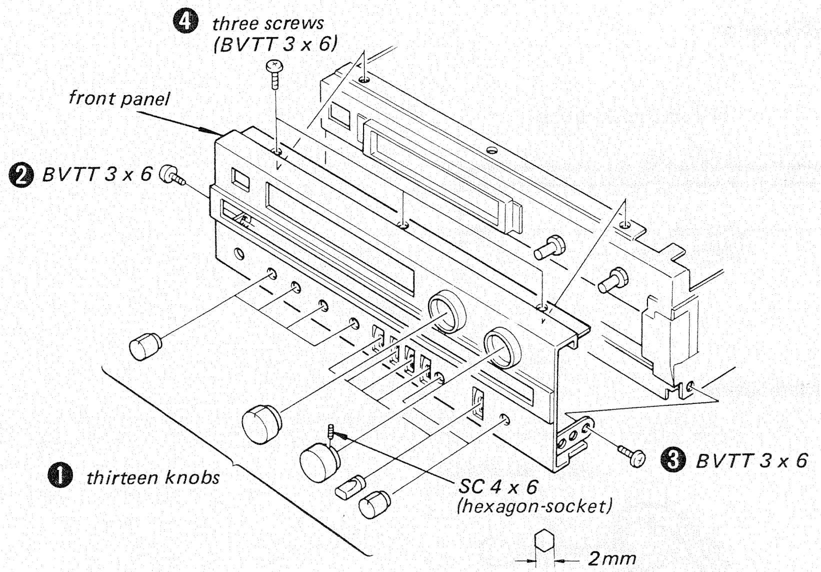
TOP COVER REMOVAL


top cover
SONY
screw, ⊕ BW 4 x 22
(at both sides)

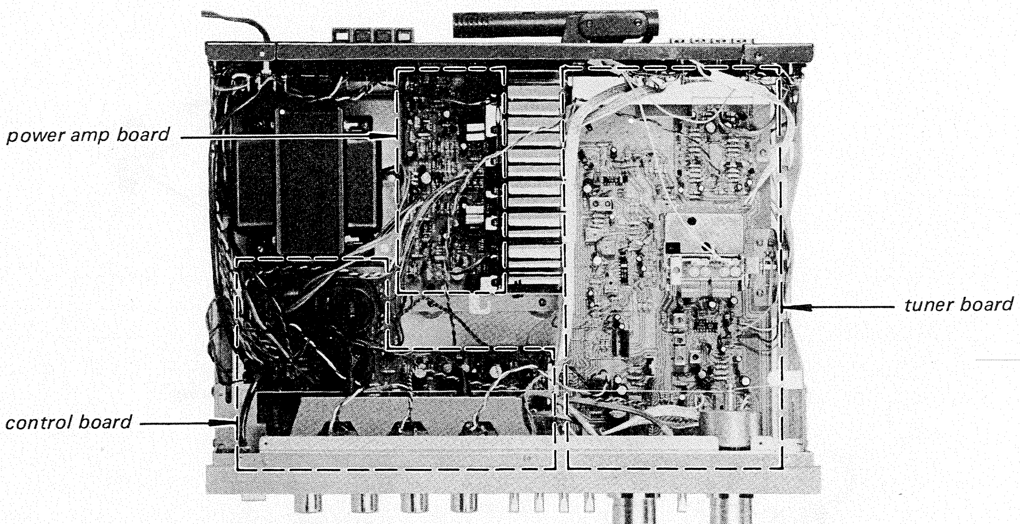
BOTTOM COVER REMOVAL


bottom cover
eight screws
(BVTT 3 x 6)

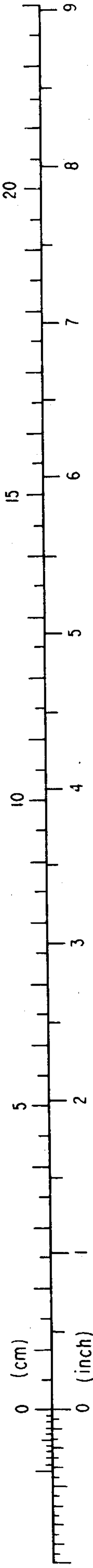
FRONT PANEL REMOVAL


④ three screws
(BVTT 3 x 6)
front panel
② BVTT 3 x 6
① thirteen knobs
③ BVTT 3 x 6
SC 4 x 6
(hexagon-socket)
2mm

CIRCUIT BOARD CHECKING (COMPONENT SIDE)


power amp board
control board
tuner board

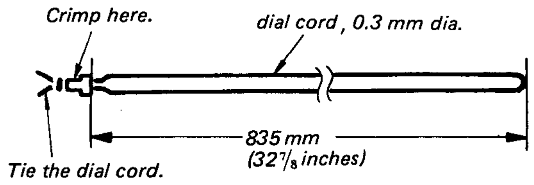
CIRCUIT BOARD CHECKING (CONDUCTOR SIDE)



20
15
10
5
0
(cm)
8
7
6
5
4
3
2
1
0
(inch)

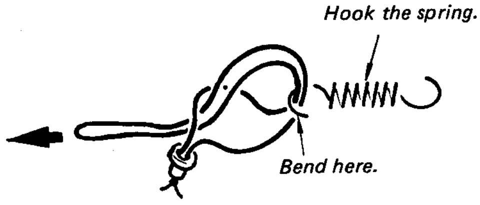
2-2. DIAL CORD STRINGING

1) Dial Cord Preparation



Crimp here.
dial cord, 0.3 mm dia.
835 mm
(32⅞ inches)
Tie the dial cord.

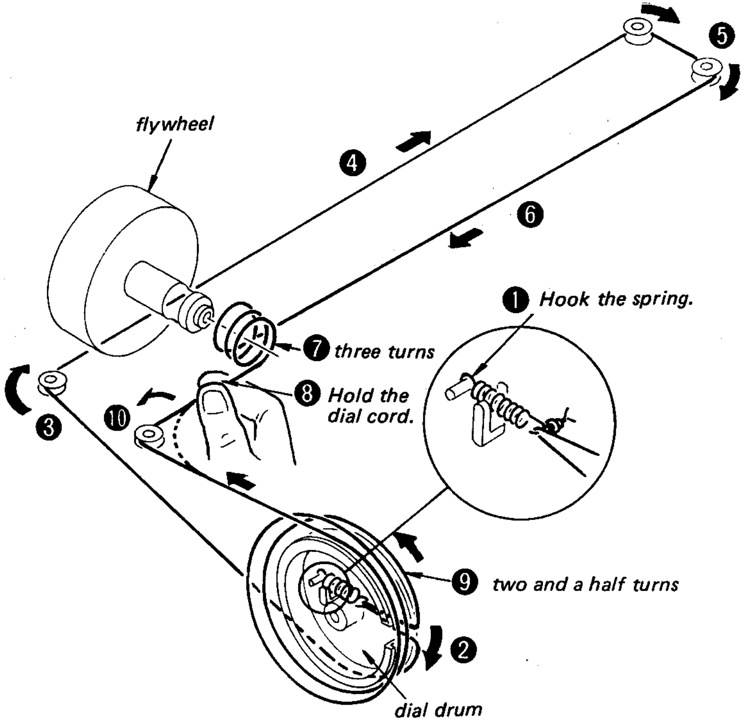
2) Dial Spring Installation



Hook the spring.
Bend here.

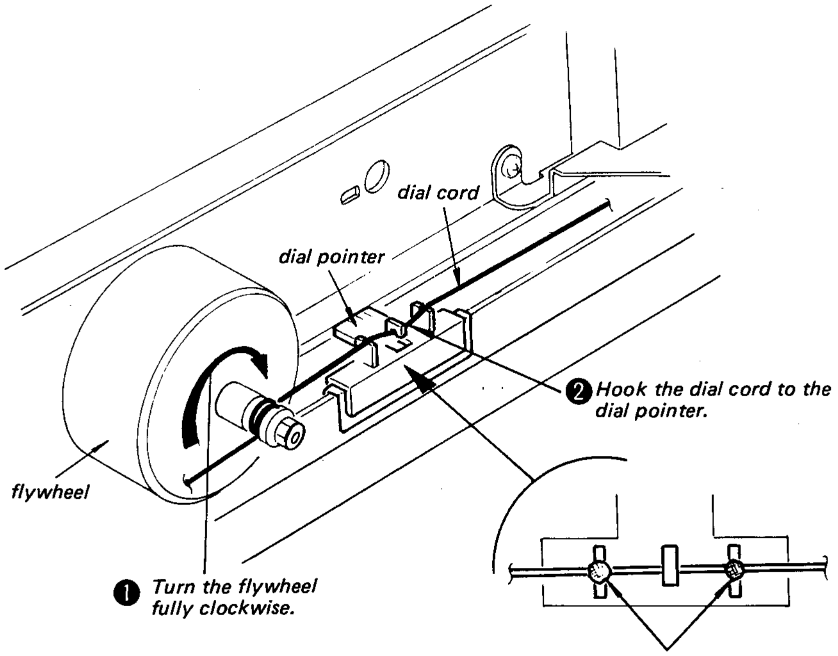
3) Dial Cord Stringing

Turn the dial drum fully counterclockwise.



flywheel
❹
❺
❻
❶ Hook the spring.
❼ three turns
❽ Hold the dial cord.
❸
❿
❾ two and a half turns
❷
dial drum

4) Dial Pointer Installation


dial cord
dial pointer
flywheel

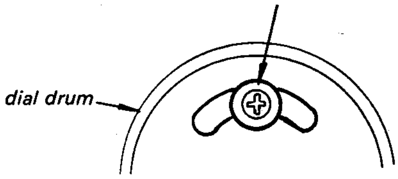
❶ *Turn the flywheel fully clockwise.*

❷ *Hook the dial cord to the dial pointer.*

❹ *Apply suitable locking compound.*

❸ *Set the dial pointer at "108.8 MHz", and confirm that the screw of dial drum is at the center of the hole as shown below.*

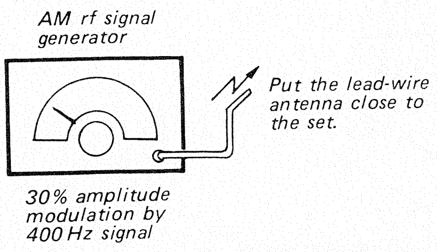
❺ *Tighten the screw.*

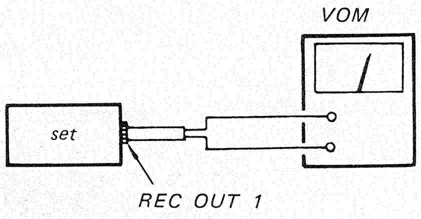


SECTION 3

ADJUSTMENTS

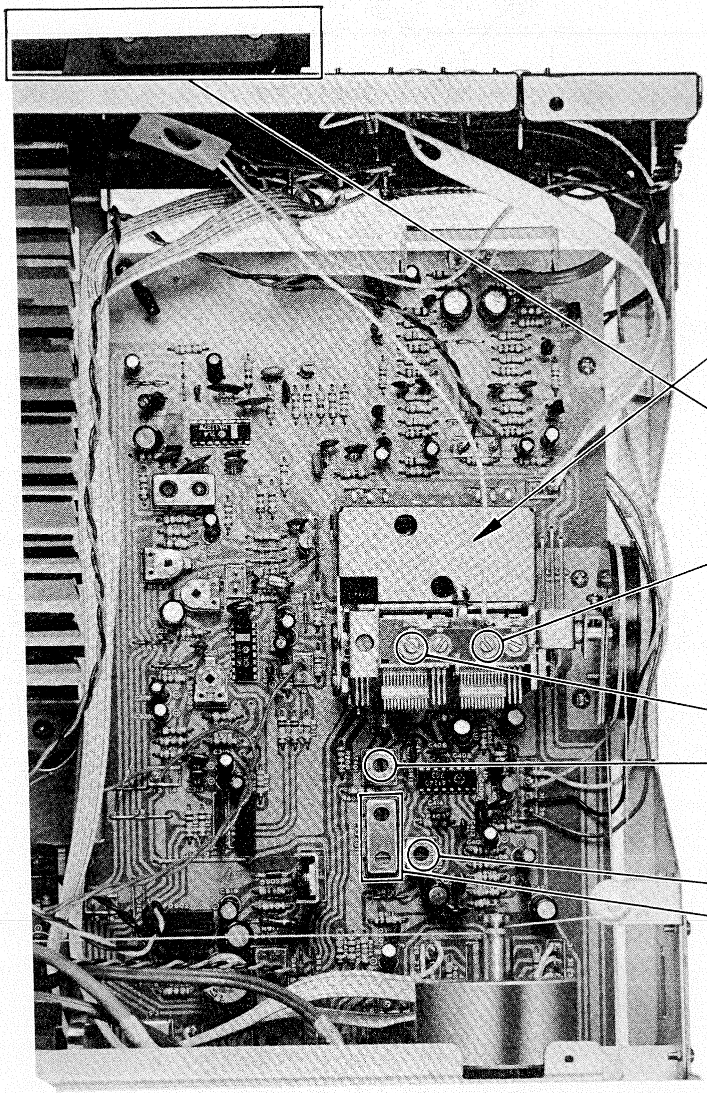
3-1. AM SECTION


AM rf signal generator
Put the lead-wire antenna close to the set.
30% amplitude modulation by 400 Hz signal


VOM
set
REC OUT 1

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

— tuner board —



FRONT-END SECTION
The front-end section has been carefully adjusted at the factory, so that adjustment is unnecessary in the field.

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VOM.	
L1	600 kHz
CT5	1,400 kHz

AM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VOM.	
CT4	1,605 kHz
T401	530 kHz

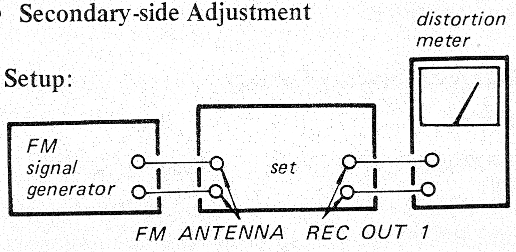
No adjustment is necessary.
IFT401
CFT401

3-2. FM SECTION

Discriminator Adjustment

- **Secondary-side Adjustment**

Setup:


distortion meter
FM signal generator
set
FM ANTENNA
REC OUT 1

FM Signal Generator Setting:

Carrier frequency: 98 MHz
Output level: 1 mV (60 dB)
Modulation: 400 Hz, 75 kHz deviation (100 %)

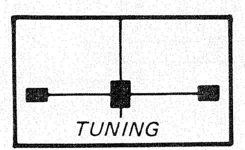
Procedure:

1. Tune the set to 98 MHz.
2. Adjust the secondary-side core (black) of IFT201 for a minimum reading on the distortion meter.

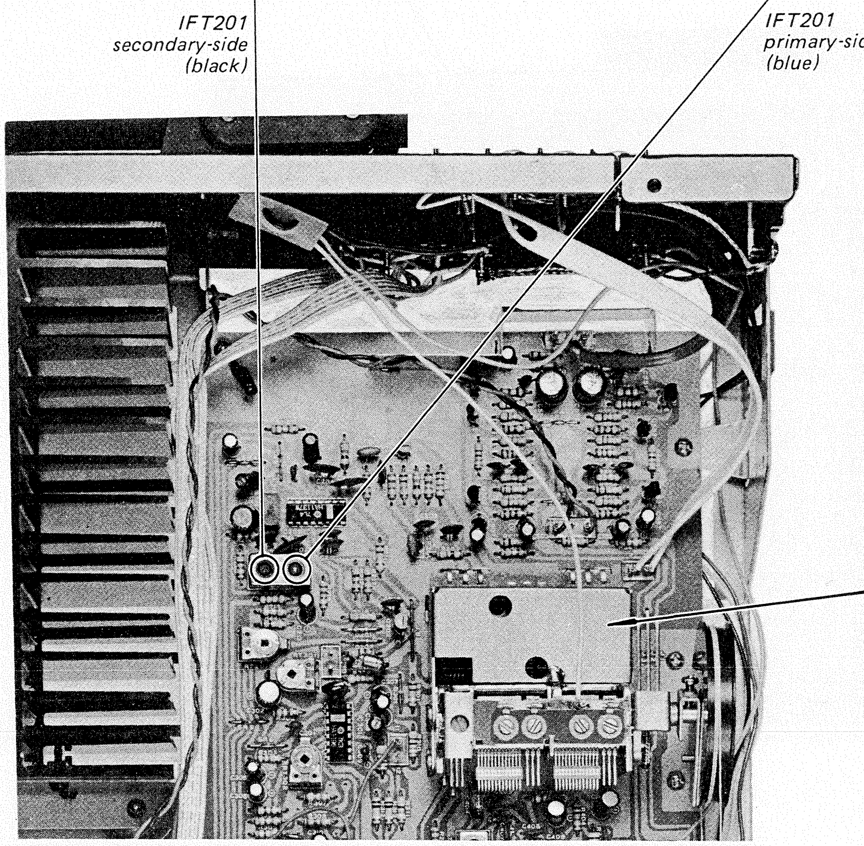
- **Primary-side Adjustment**

Procedure:

1. Detune the set.
2. Adjust the primary-side core (blue) of IFT201 for the center position on the TUNING meter.



Note: Repeat the secondary-side and primary-side adjustments several times.


IFT201 secondary-side (black)
IFT201 primary-side (blue)

– tuner board –

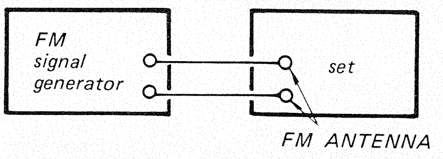
FRONT-END SECTION

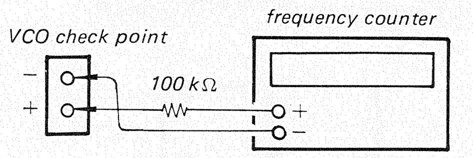
The front-end section has been carefully adjusted at the factory, so that adjustment is unnecessary in the field.

VCO Adjustment

A) With Frequency Counter

Setup:


FM
signal
generator
set
FM ANTENNA


VCO check point
frequency counter
−
+
100 kΩ
+
−

FM Signal Generator Setting:

Carrier frequency:	98 MHz
Output level:	1 mV (60 dB)
Modulation:	no modulation

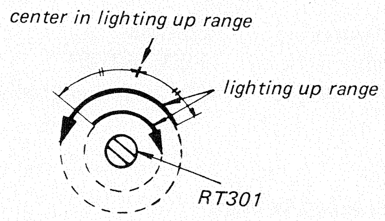
Procedure:

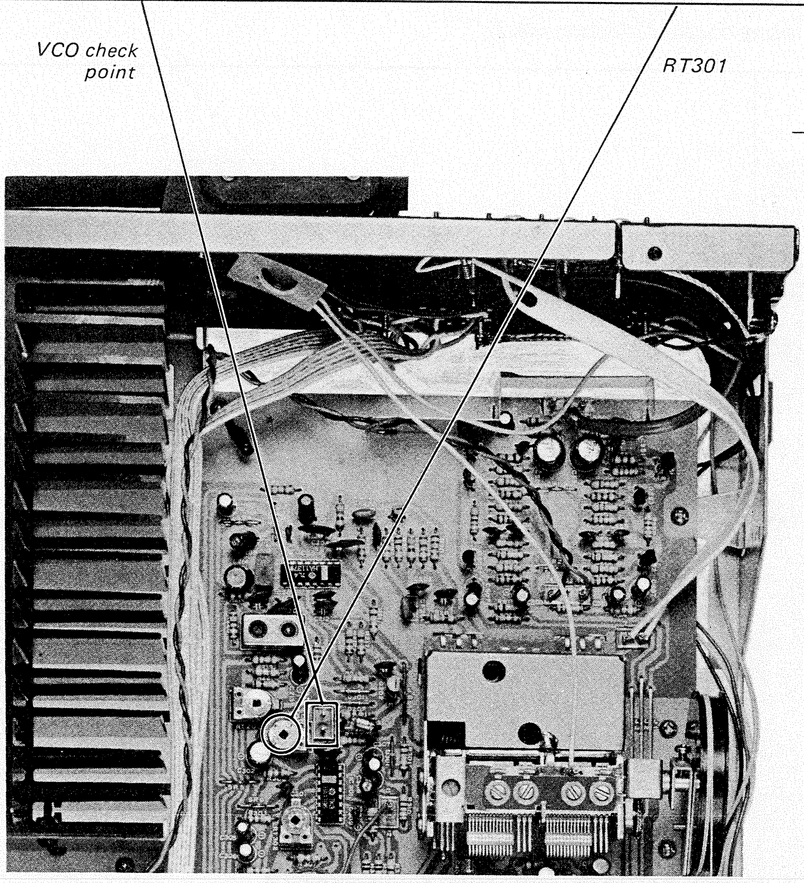
1. Tune the set to 98 MHz.
2. Adjust RT301 for 19 kHz ± 100 Hz on the frequency counter.

B) Without Frequency Counter

Procedure:

1. Tune the set to FM stereo broadcasting signal.
2. Turn RT301 clockwise or counterclockwise and secure RT301 at the center in lighting-up range of STEREO lamp as shown below.


center in lighting up range
lighting up range
RT301

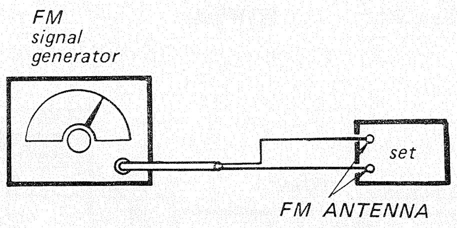

VCO check point
RT301

– tuner board –

Signal Meter Calibration

Setup:

METER switch: SIGNAL

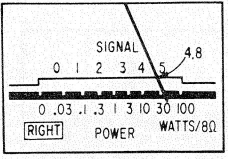

FM signal generator
set
FM ANTENNA

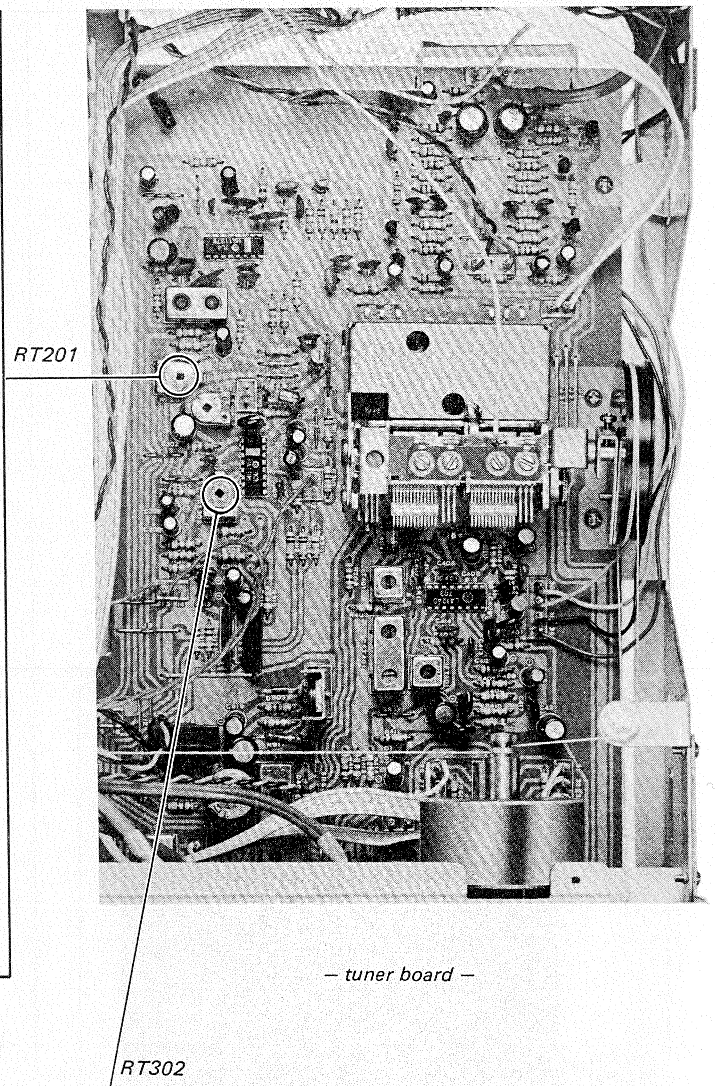
FM Signal Generator Setting:

Carrier frequency:	98 MHz
Output level:	3.2 mV (70 dB)
Modulation:	no modulation

Procedure:

Tune the set to 98 MHz and adjust RT201 for specified pointer position on the SIGNAL meter. (See figure below.)


SIGNAL
0 1 2 3 4 5
4.8
0 .03 .1 .3 1 3 10 30 100
RIGHT
POWER
WATTS/8Ω

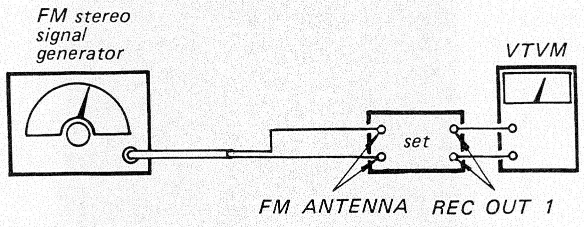

RT201
RT302

— tuner board —

FM Stereo Separation Adjustment

Setup:

MODE switch: FM STEREO


FM stereo signal generator
VTVM
set
FM ANTENNA
REC OUT 1

FM Stereo Signal Generator Setting:

Carrier frequency:	98 MHz
Output level:	1 mV (60 dB)
Mode:	Stereo
Modulation:	
Audio (400 Hz):	33.75 kHz deviation (45 %)
Pilot (19 kHz):	7.5 kHz deviation (10 %)

Procedure:

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT302 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT302 for minimum reading.

L-CH Stereo separation: Ⓐ – Ⓑ
R-CH Stereo separation: Ⓒ – Ⓓ

The difference between separations of both channels should be equal.

3-3. AUDIO SECTION

DC Bias Adjustment

Setup:

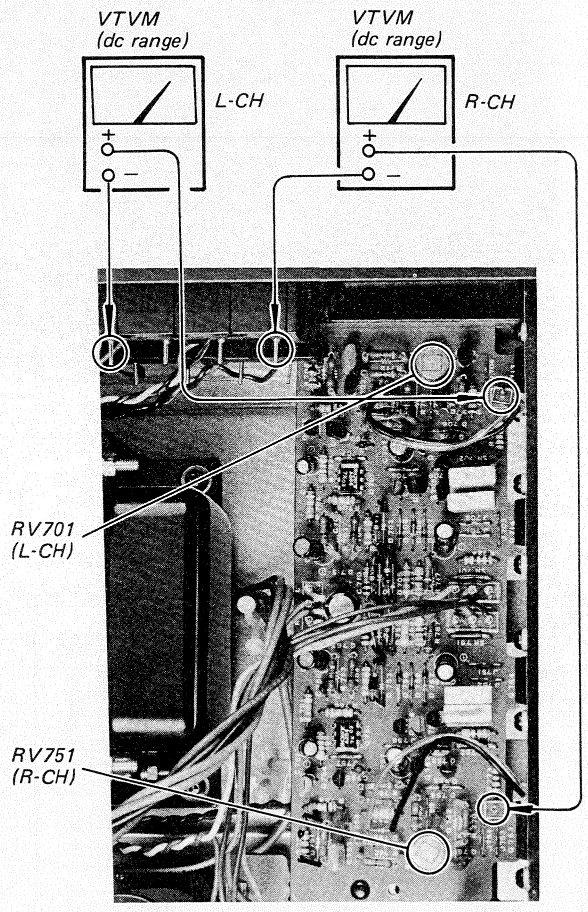
1. Detune the set.
2. Perform this adjustment one minute or more later after turning the POWER switch "ON".

Procedure:

1. Adjust RV701 (L-CH) and RV751 (R-CH) for 22 mV reading on the VTVM.

Adjustment Location:

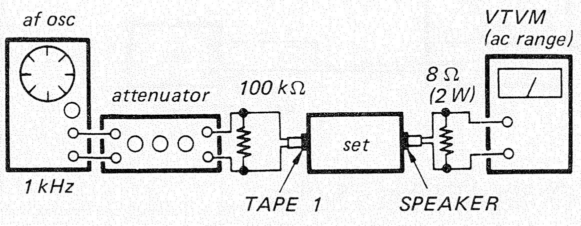
– **power amp board** –


VTVM
(dc range)
L-CH
VTVM
(dc range)
R-CH
+
−
RV701
(L-CH)
RV751
(R-CH)

Power Meter Calibration

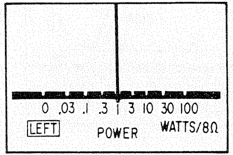
Setup:

MONITOR switch: TAPE 1
METER switch: POWER


af osc
1 kHz
attenuator
100 kΩ
set
TAPE 1
8 Ω
(2 W)
SPEAKER
VTVM
(ac range)

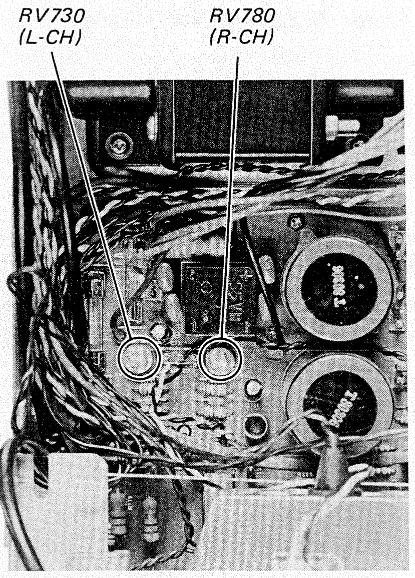
Procedure:

1. Turn the VOLUME control fully clockwise.
2. Adjust the attenuator for 2.83 V (1 W) reading on the VTVM.
3. Adjust RV730 (L-CH) and RV780 (R-CH) so that the POWER meter indicates 1 W.


0 .03 .1 .3 1 3 10 30 100
LEFT
POWER
WATTS/8Ω

Adjustment Location:

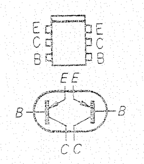
– **control board** –


RV730
(L-CH)
RV780
(R-CH)

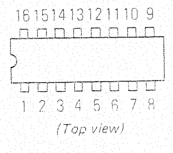
SECTION 4
DIAGRAMS

xcept in ( ).

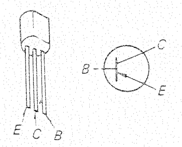
Q701, 751: 2SA884



IC301: HA1196
IC401: LA1240


16 15 14 13 12 11 10 9
1 2 3 4 5 6 7 8
(Top view)

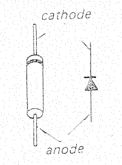
Q703, 753: 2SA896 (2SB646A)



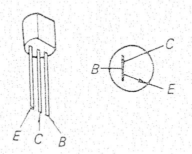
D201, 202
D301, 401
D601, 651 : 1S1555
D706–709
D756–759

D703–705
D753–755 : 10E2 (10E1)

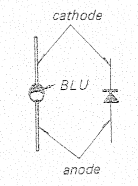
D730, 780
D731, 781 : 1T22AM (1T22)
D801


cathode
anode

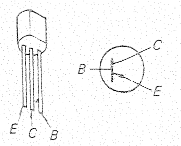
Q704, 754: 2SC1811 (2SD666A)
Q711, 761: 2SD667 (2SD667A)
Q715, 901: 2SD667



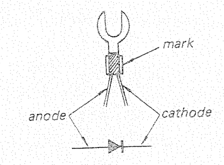
D701, 751: MV12N


cathode
BLU
anode

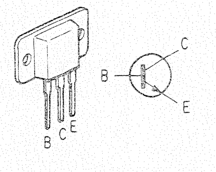
Q712, 762: 2SB647 (2SB647A)
Q765, 902: 2SB647



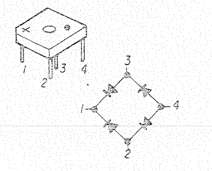
D702, 752: SV04S (SV04F)


mark
anode
cathode

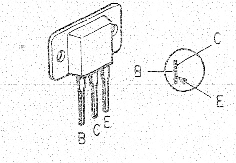
Q713, 763: 2SD735



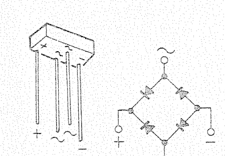
D901: S5VB20 (S5VB)



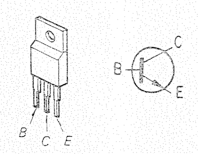
Q714, 764: 2SB699



D902: SIRB10



Q905: 2SC1826



IC201: HA1137W (HA1137)

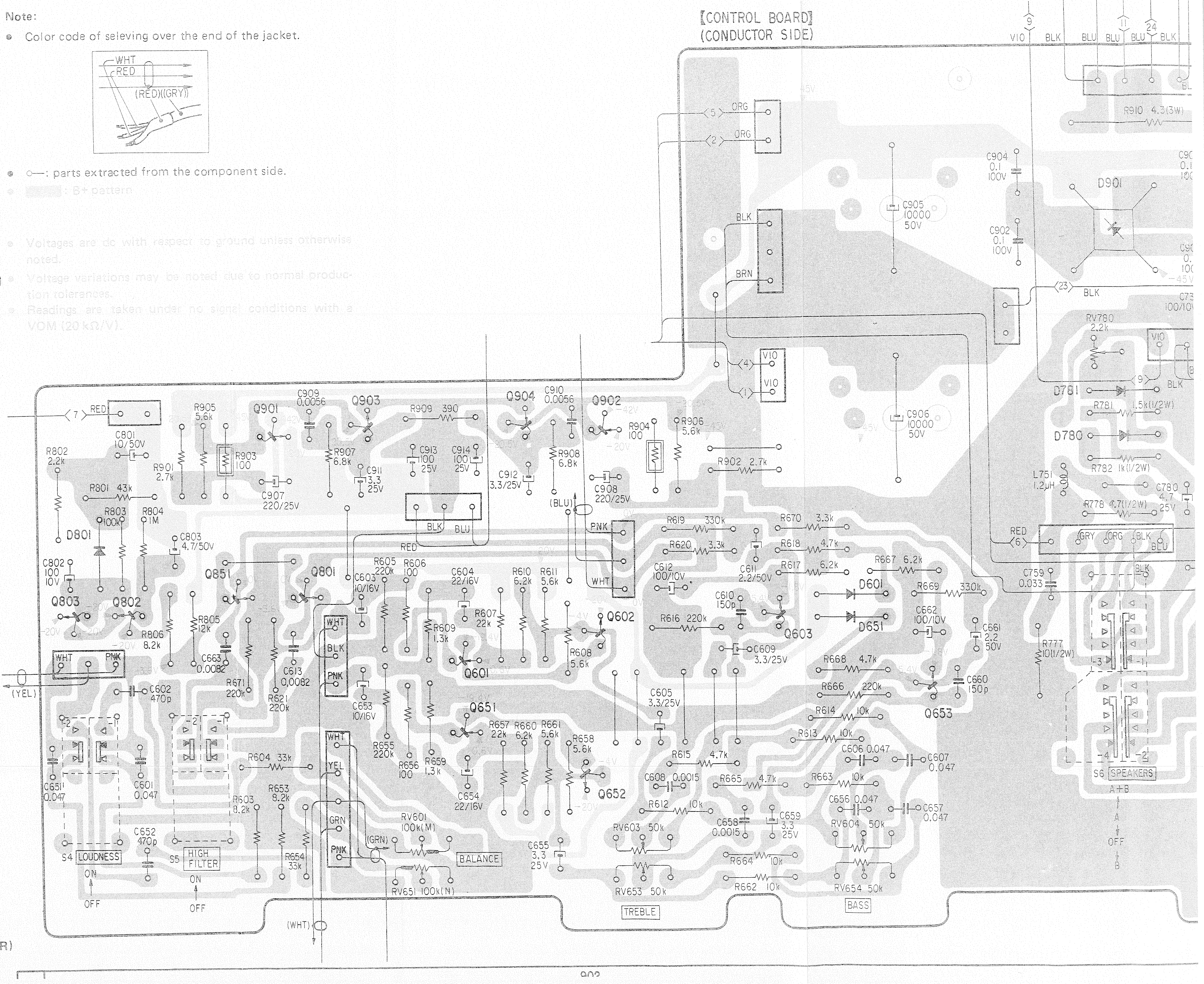
D903: EQB01-16 (EQA01-16R)

4-1. MOUNTING DIAGRAM
– Conductor Side –

Note:

- Color code of seleving over the end of the jacket.

- ○—: parts extracted from the component side.
- ▨ : B+ pattern
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no signal conditions with a VOM (20 kΩ/V).


WHT
RED
(RED)((GRY))
[CONTROL BOARD]
(CONDUCTOR SIDE)
9
V10
BLK
BLU
BLU
11
BLU
24
BLK
R910 4.3(3W)
5
ORG
2
ORG
C904 0.1 100V
D901
C905 10000 50V
C902 0.1 100V
BLK
BRN
23
BLK
RV780 2.2k
V10
4
V10
1
V10
9
BLK
D781
R781 1.5k(1/2W)
D780
R782 1k(1/2W)
L751 1.2μH
C780 4.7 25V
R778 4.7(1/2W)
C906 10000 50V
RED
6
GRY
ORG
BLK
BLU
BLK
C759 0.033
R777 10(1/2W)
S6 SPEAKERS
A+B
A
OFF
B
7
RED
R905 5.6k
Q901
C909 0.0056
Q903
R909 390
Q904
C910 0.0056
Q902
R904 100
R906 5.6k
R902 2.7k
C801 10/50V
R802 2.2k
R901 2.7k
R903 100
R907 6.8k
C913 100 25V
C914 100 25V
C911 3.3 25V
C912 3.3/25V
R908 6.8k
C908 220/25V
C907 220/25V
R801 43k
R803 100k
R804 1M
D801
C803 4.7/50V
BLK
BLU
RED
(BLU)
PNK
WHT
R619 330k
R620 3.3k
R670 3.3k
R618 4.7k
R617 6.2k
R667 6.2k
C612 100/10V
C611 2.2/50V
D601
R669 330k
C610 150p
C662 100/10V
D651
C661 2.2 50V
Q603
C609 3.3/25V
R668 4.7k
R666 220k
C660 150p
Q653
R614 10k
R613 10k
C606 0.047
C607 0.047
R615 4.7k
R665 4.7k
R663 10k
C608 0.0015
R612 10k
C656 0.047
C657 0.047
C658 0.0015
C659 3.3 25V
RV603 50k
RV604 50k
R664 10k
R662 10k
RV653 50k
RV654 50k
TREBLE
BASS
R616 220k
C605 3.3/25V
Q602
R610 6.2k
R611 5.6k
R608 5.6k
C604 22/16V
R607 22k
R609 1.3k
Q601
R605 220k
R606 100
C603 10/16V
Q801
Q851
C802 100 10V
Q803
Q802
R805 12k
R806 8.2k
C663 0.0082
R671 220k
R621 220k
C613 0.0082
WHT
BLK
PNK
WHT
PNK
(YEL)
C602 470p
C653 10/16V
Q651
R657 22k
R660 6.2k
R661 5.6k
R658 5.6k
Q652
R655 220k
R656 100
R659 1.3k
C654 22/16V
R604 33k
R653 8.2k
R603 8.2k
C651 0.047
C601 0.047
WHT
YEL
GRN
PNK
(GRN)
RV601 100k(M)
BALANCE
RV651 100k(N)
C655 3.3 25V
C652 470p
R654 33k
S4 LOUDNESS
ON
OFF
S5 HIGH FILTER
ON
OFF
(WHT)
−42V
−45V
−20V
−4V
0V

. MOUNTING DIAGRAM

– Conductor Side –

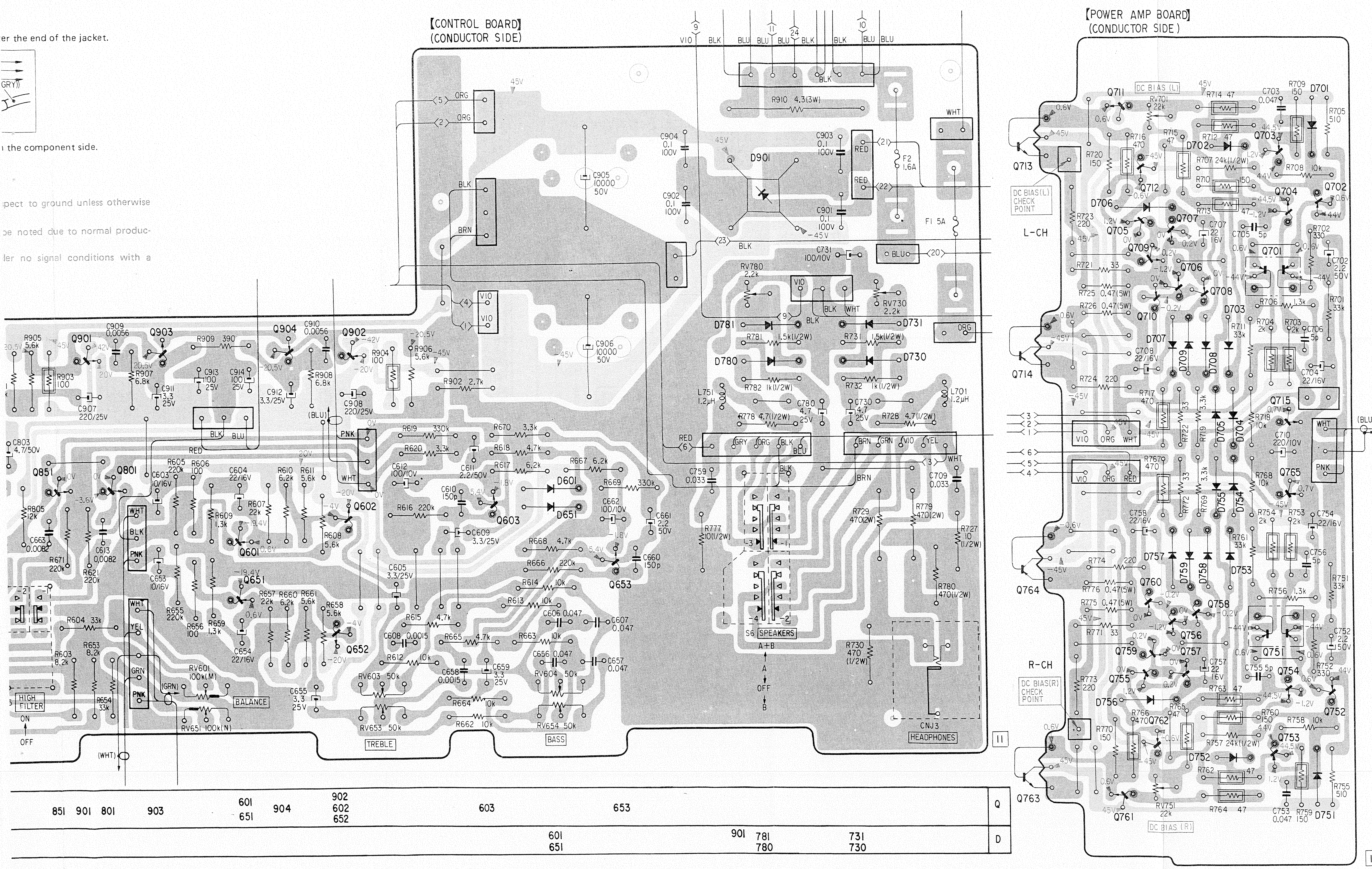
er the end of the jacket.

the component side.

spect to ground unless otherwise

be noted due to normal produc-

ler no signal conditions with a

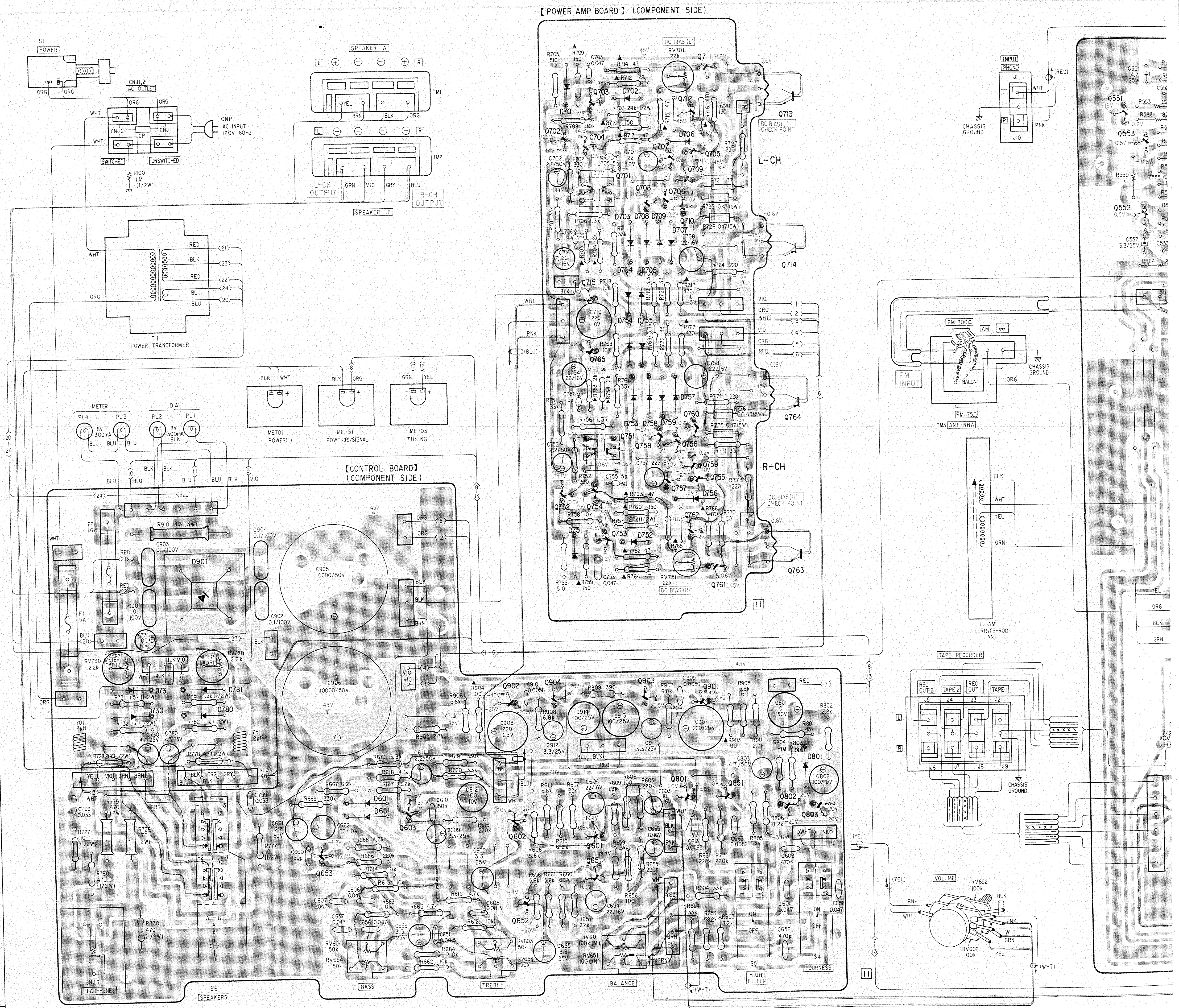

[CONTROL BOARD]
(CONDUCTOR SIDE)
[POWER AMP BOARD]
(CONDUCTOR SIDE)
L-CH
R-CH
DC BIAS(L) CHECK POINT
DC BIAS(R) CHECK POINT
DC BIAS (L)
DC BIAS (R)
S6 SPEAKERS
A+B
A
OFF
B
CNJ3
HEADPHONES
TREBLE
BASS
BALANCE
HIGH FILTER
ON
OFF
RV601 100k(M)
RV651 100k(N)
RV603 50k
RV653 50k
RV604 50k
RV654 50k
RV701 22k
RV751 22k
RV730 2.2k
RV780 2.2k
D901
F1 5A
F2 1.6A
C905 10000 50V
C906 10000 50V
R910 4.3(3W)
L701 1.2μH
L751 1.2μH
Q901
Q902
Q903
Q904
Q801
Q851
Q601
Q602
Q603
Q651
Q652
Q653
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q711
Q712
Q713
Q714
Q715
Q751
Q752
Q753
Q754
Q755
Q756
Q757
Q758
Q759
Q760
Q761
Q762
Q763
Q764
Q765
D601
D651
D701
D702
D703
D704
D705
D706
D707
D708
D709
D730
D731
D751
D752
D753
D754
D755
D756
D757
D758
D759
D780
D781
BLK
BLU
RED
WHT
BRN
ORG
GRY
VIO
YEL
PNK
GRN
(BLU)
(WHT)
(GRN)
45V
-45V
11
11

851	901	801	903	601 651	904	902 602 652	603		653				Q
								601 651		901	781 780	731 730	D

Q	D
711	701
703	702
713 712	
702 704	706
705 707	
709	
701	
706 708 710	
714	707 709 708 703
715	705 704
765	755 754
764	757 759 758 753
760 758	
756 751 759 757 754 755 752	756
762 753	752
763	751
761	
Q	D

4-2. MOUNTING DIAGRAM

Q	D
711	
	701
703 712 713	702
702 704 705 707	706
709	
701	
706	
708 710	
714	703 708 709 707
715	704 705
765	754 755
764	753 758 759 757
760	
758 756	
751	
759	
755 757 754	
752	756
762 753	752
763	751
761	
	901
	731 781
904 903 902 901	730 780
	801
801 851 603 802 803	601
602	651
601	
653	
651	
652	
Q	D

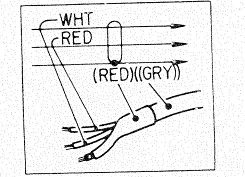

[POWER AMP BOARD] (COMPONENT SIDE)
[CONTROL BOARD] (COMPONENT SIDE)
S11 POWER
CNJ1,2 AC OUTLET
SWITCHED
UNSWITCHED
CNP1 AC INPUT 120V 60Hz
R1001 1M (1/2W)
SPEAKER A
SPEAKER B
TM1
TM2
L-CH OUTPUT
R-CH OUTPUT
T1 POWER TRANSFORMER
METER
DIAL
PL4
PL3
PL2
PL1
ME701 POWER(L)
ME751 POWER(R)/SIGNAL
ME703 TUNING
L-CH
R-CH
DC BIAS (L)
DC BIAS (L) CHECK POINT
DC BIAS (R)
DC BIAS (R) CHECK POINT
D901
C905 10000/50V
C906 10000/50V
INPUT PHONO
J1
CHASSIS GROUND
J10
FM 300Ω
AM
FM INPUT
L2 BALUN
FM 75Ω
TM3 ANTENNA
L1 AM FERRITE-ROD ANT
TAPE RECORDER
REC OUT 2
TAPE 2
REC OUT 1
TAPE 1
VOLUME
RV652 100k
RV602 100k
BASS
TREBLE
BALANCE
HIGH FILTER
LOUDNESS
S5
S4
S6 SPEAKERS
CNJ3 HEADPHONES
A+B
OFF

—16—

—17—

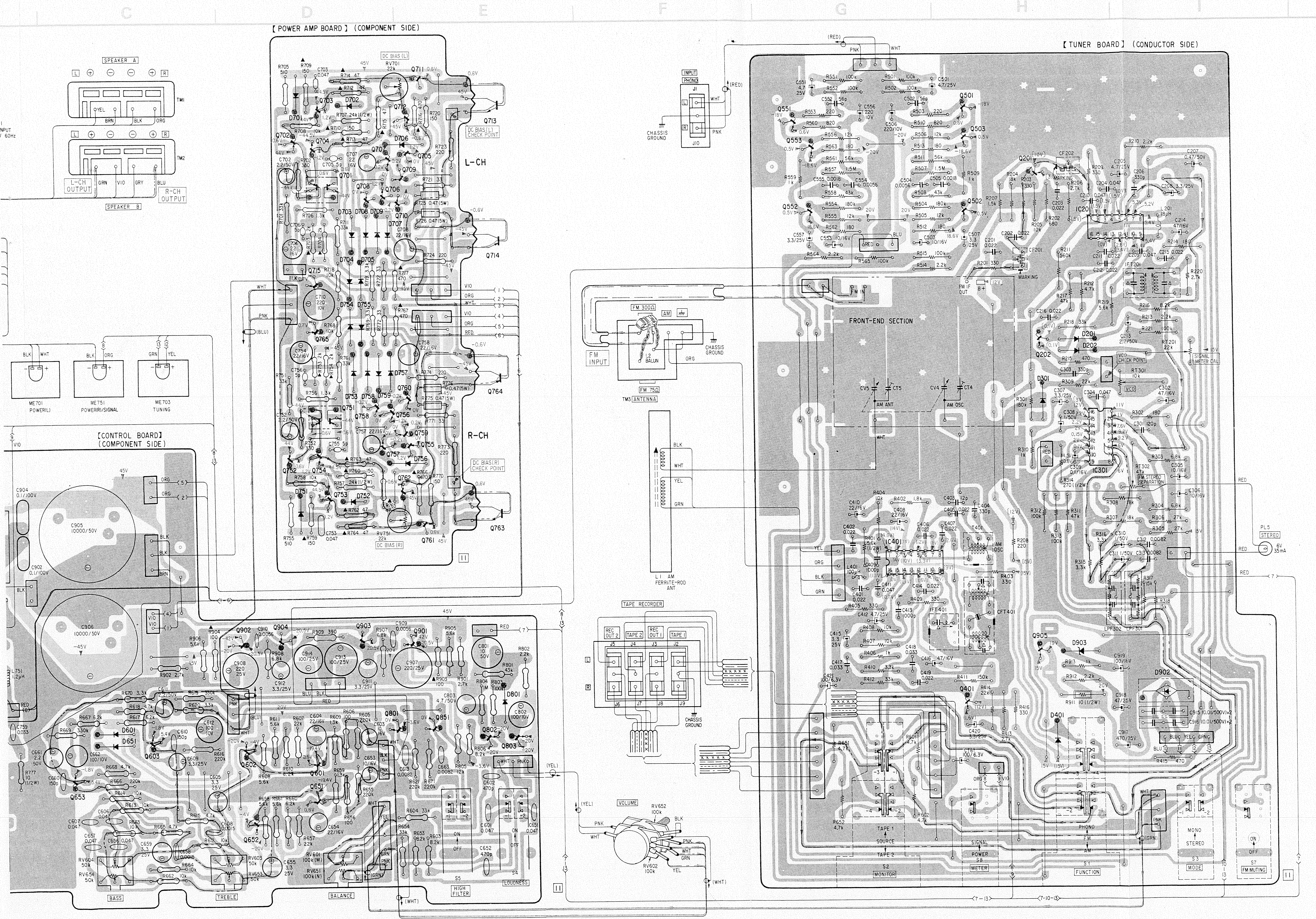
Note:

- Color code of sleeving over the end of the jacket.


WHT
RED
(RED)((GRY))

- ○—: parts extracted from the component side.
- [ ]⊢ : indicates side identified with part number.
- ▨ : B+ pattern
- ▨ : B− pattern
- Signal Path
  - — — →: FM
  - —— – →: L-CH audio
  - —— - - →: R-CH audio
  - ———→: L-CH or R-CH audio
- ▲ : nonflammable resistor.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no signal conditions with a VOM (20 kΩ/V).

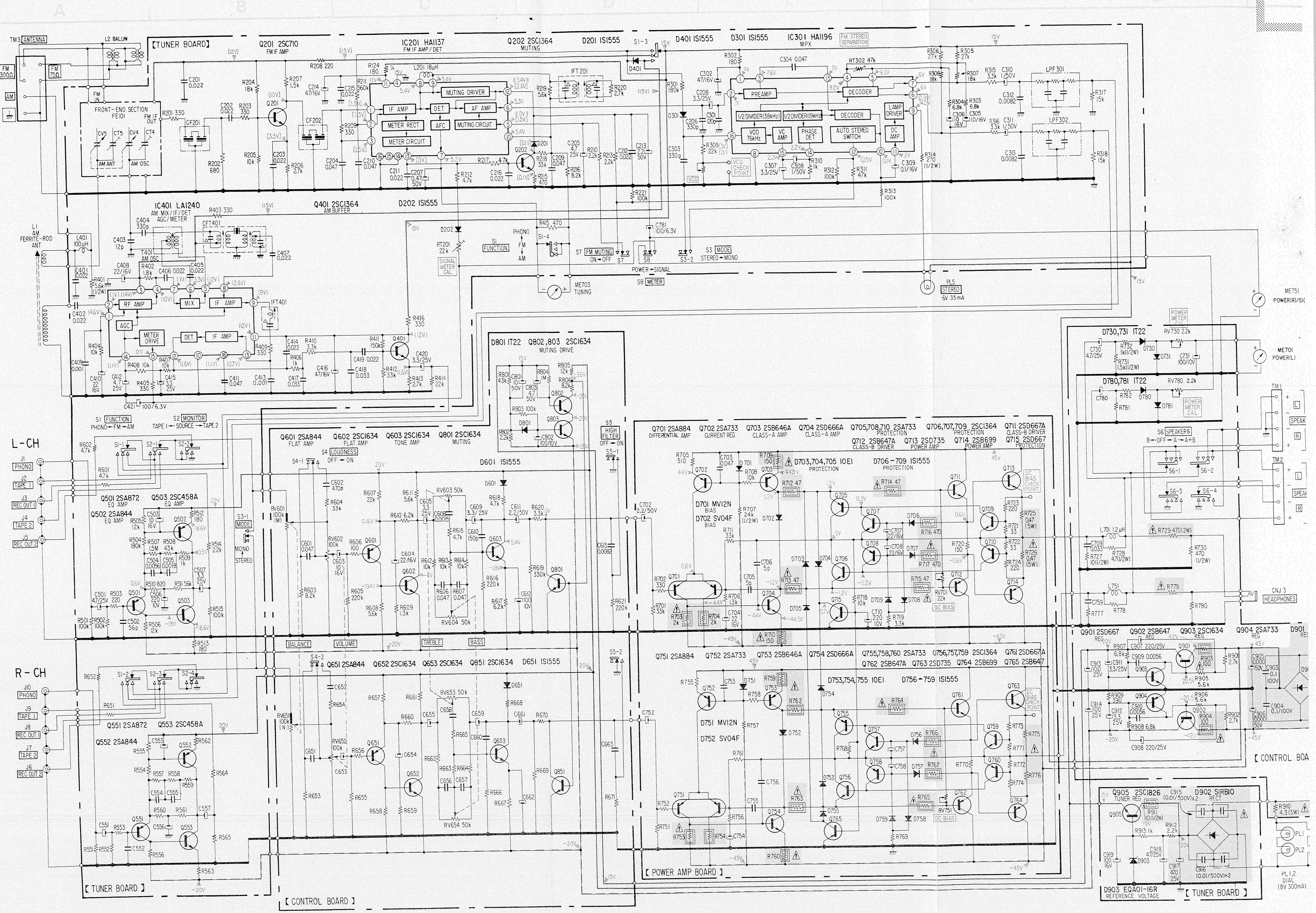
( ) : AM
[ ] : FM
no mark : common
< > : FM STEREO
(( )): S3 (MODE) .... MONO
S7 (FM MUTING)........ OFF


C
D
E
F
G
H
I
J
[POWER AMP BOARD] (COMPONENT SIDE)
[TUNER BOARD] (CONDUCTOR SIDE)
[CONTROL BOARD] (COMPONENT SIDE)
SPEAKER A
SPEAKER B
TM1
TM2
L-CH OUTPUT
R-CH OUTPUT
L-CH
R-CH
DC BIAS (L)
DC BIAS (L) CHECK POINT
DC BIAS (R)
DC BIAS (R) CHECK POINT
ME701 POWER(L)
ME751 POWER(R)/SIGNAL
ME703 TUNING
C905 10000/50V
C906 10000/50V
INPUT PHONO
CHASSIS GROUND
FM 300Ω
AM
FM 75Ω
FM INPUT
L2 BALUN
TM3 ANTENNA
L1 AM FERRITE-ROD ANT
TAPE RECORDER
REC OUT 2
TAPE 2
REC OUT 1
TAPE 1
VOLUME
RV652 100k
RV602 100k
FRONT-END SECTION
FM IN
VCO CHECK POINT
SIGNAL METER CAL
FM STEREO SEPARATION
PL5 STEREO 6V 35mA
IC201
IC301
IC401
BASS
TREBLE
BALANCE
HIGH FILTER
LOUDNESS
S2 MONITOR
S8 METER
S1 FUNCTION
S3 MODE
S7 FM MUTING
TAPE 1
SOURCE
TAPE 2
SIGNAL
POWER
PHONO
FM
AM
MONO
STEREO
ON
OFF

D	Q,IC'
	551 501
	553 503
	201
	552 502 IC201
201 202	202
301	
	IC301
	IC401
903	905
902	401
401	
D	Q,IC

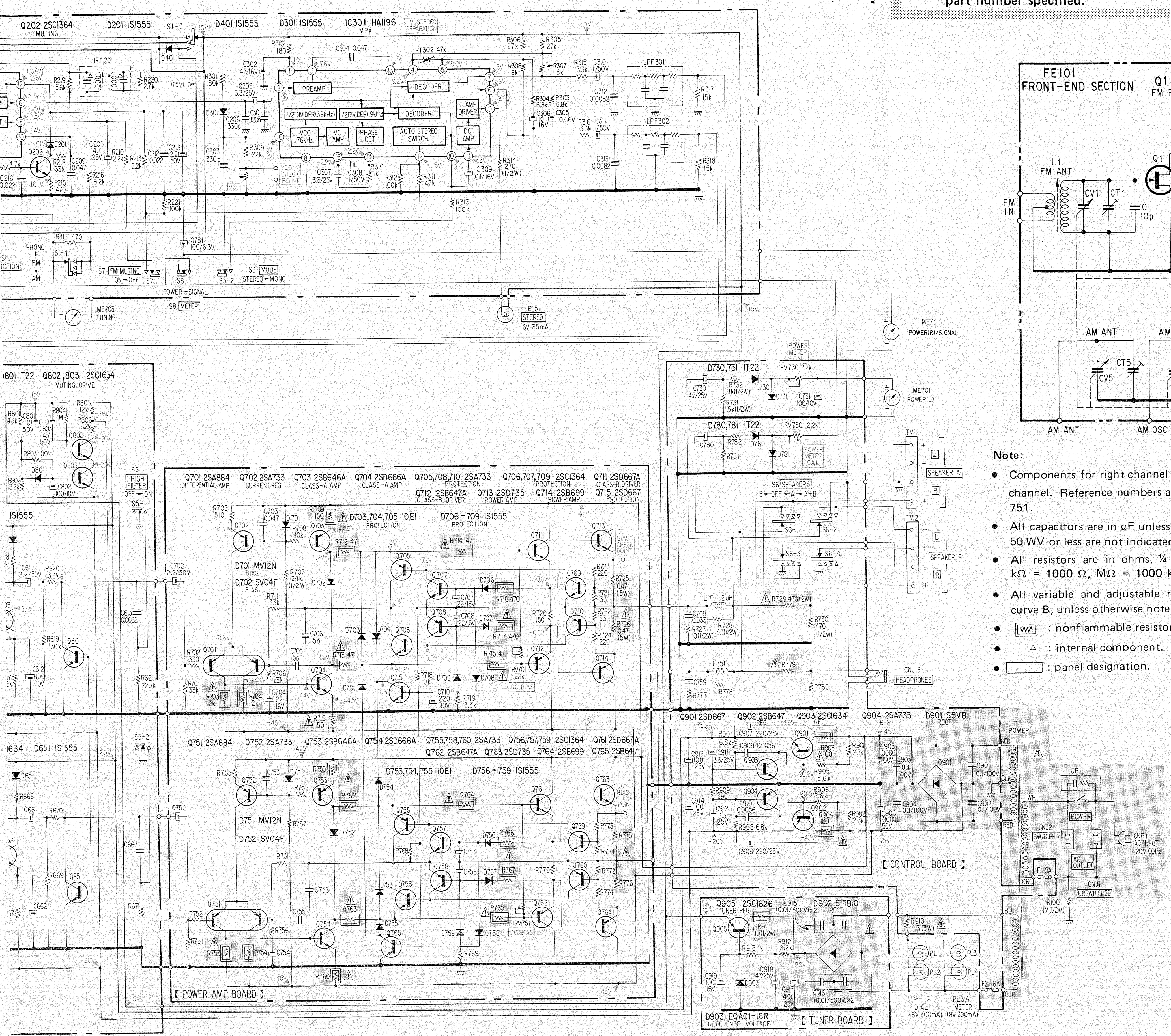
4-3. SCHEMATIC DIAGRAM

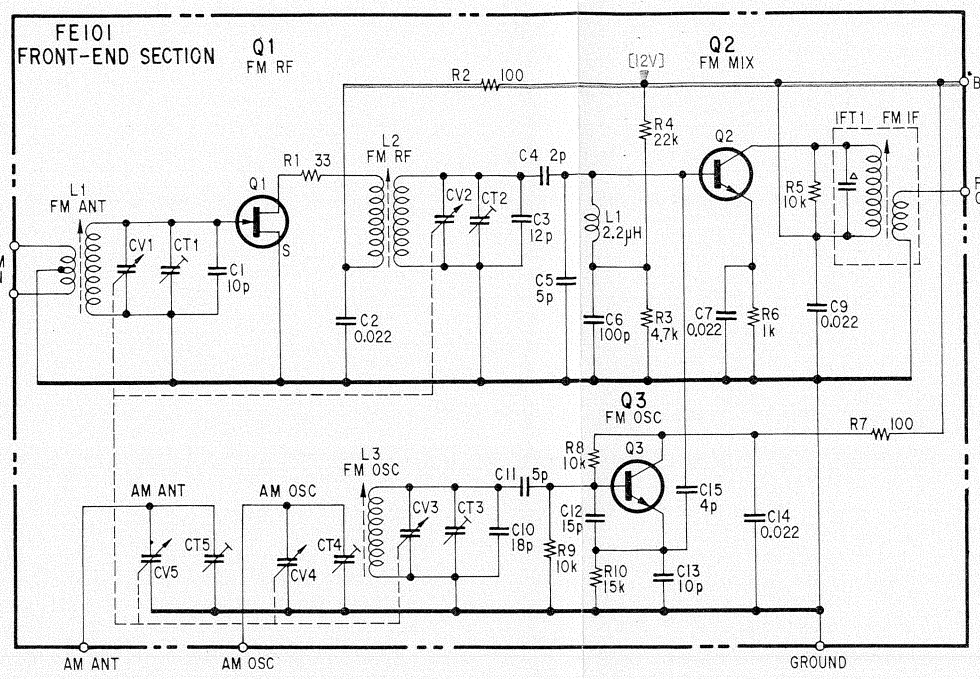
Note:


A
B
C
D
E
F
G
1
2
3
4
5
TM3 ANTENNA
FM 300Ω
FM 75Ω
AM
L2 BALUN
[TUNER BOARD]
FRONT-END SECTION FE101
AM ANT
AM OSC
CF201
Q201 2SC710 FM IF AMP
IC201 HA1137 FM IF AMP / DET
IF AMP
DET
AF AMP
METER RECT
AFC
MUTING CIRCUIT
METER CIRCUIT
MUTING DRIVER
Q202 2SC1364 MUTING
D201 1S1555
IFT201
S1-3
D401 1S1555
D301 1S1555
IC301 HA1196 MPX
FM STEREO SEPARATION
PREAMP
DECODER
LAMP DRIVER
1/2 DIVIDER(38kHz)
1/2 DIVIDER(19kHz)
VCO 76kHz
VC AMP
PHASE DET
AUTO STEREO SWITCH
DC AMP
VCO CHECK POINT
LPF301
LPF302
L1 AM FERRITE-ROD ANT
IC401 LA1240 AM MIX/IF/DET AGC/METER
RF AMP
MIX
IF AMP
AGC
METER DRIVE
DET
CFT401
IFT401
T401 AM OSC
Q401 2SC1364 AM BUFFER
D202 1S1555
RT201 22k
SIGNAL METER CAL
S1 FUNCTION
PHONO FM AM
S7 FM MUTING ON-OFF
S8 METER
POWER-SIGNAL
S3 MODE STEREO-MONO
ME703 TUNING
PL5 STEREO 6V 35mA
D801 1T22 Q802,803 2SC1634 MUTING DRIVE
L-CH
J1 PHONO
J2 TAPE 1
J3 REC OUT 1
J4 TAPE 2
J5 REC OUT 2
S1 FUNCTION PHONO-FM-AM
S2 MONITOR TAPE 1-SOURCE-TAPE 2
Q501 2SA872 EQ AMP
Q502 2SA844 EQ AMP
Q503 2SC458A EQ AMP
S3-1 MODE MONO STEREO
Q601 2SA844 FLAT AMP
Q602 2SC1634 FLAT AMP
Q603 2SC1634 TONE AMP
Q801 2SC1634 MUTING
S4 LOUDNESS OFF-ON
D601 1S1555
RV601 100k (M)
RV602 100k
RV603 50k
RV604 50k
BALANCE
VOLUME
TREBLE
BASS
S5 HIGH FILTER OFF-ON
R-CH
J10 PHONO
J9 TAPE 1
J8 REC OUT 1
J7 TAPE 2
J6 REC OUT 2
Q551 2SA872
Q553 2SC458A
Q552 2SA844
Q651 2SA844
Q652 2SC1634
Q653 2SC1634
Q851 2SC1634
D651 1S1555
RV653 50k
RV654 50k
[TUNER BOARD]
[CONTROL BOARD]
Q701 2SA884 DIFFERENTIAL AMP
Q702 2SA733 CURRENT REG
Q703 2SB646A CLASS-A AMP
Q704 2SD666A CLASS-A AMP
Q705,708,710 2SA733 PROTECTION
Q706,707,709 2SC1364 PROTECTION
Q711 2SD667A CLASS-B DRIVER
Q712 2SB647A CLASS-B DRIVER
Q713 2SD735 POWER AMP
Q714 2SB699 POWER AMP
Q715 2SD667 PROTECTION
D703,704,705 10E1 PROTECTION
D706-709 1S1555 PROTECTION
D701 MV12N BIAS
D702 SV04F BIAS
DC BIAS CHECK POINT
DC BIAS
Q751 2SA884
Q752 2SA733
Q753 2SB646A
Q754 2SD666A
Q755,758,760 2SA733
Q756,757,759 2SC1364
Q761 2SD667A
Q762 2SB647A
Q763 2SD735
Q764 2SB699
Q765 2SB647
D753,754,755 10E1
D756-759 1S1555
D751 MV12N
D752 SV04F
[POWER AMP BOARD]
ME751 POWER(R)
ME701 POWER(L)
POWER METER CAL
D730,731 1T22
RV730 2.2k
D780,781 1T22
RV780 2.2k
S6 SPEAKERS B-OFF-A-A+B
TM1
TM2
CNJ3 HEADPHONES
Q901 2SD667
Q902 2SB647
Q903 2SC1634
Q904 2SA733
D901
[CONTROL BOARD]
Q905 2SC1826 TUNER REG
D902 SIRB10 RECT
D903 EQA01-16R REFERENCE VOLTAGE
[TUNER BOARD]
PL1,2 DIAL (8V 300mA)

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


Q202 2SC1364 MUTING
D201 1S1555
D401 1S1555
D301 1S1555
IC301 HA1196 MPX
FM STEREO SEPARATION
PREAMP
DECODER
LAMP DRIVER
VCO 76kHz
VC AMP
PHASE DET
AUTO STEREO SWITCH
DC AMP
VCO CHECK POINT
LPF301
LPF302
PHONO
FM
AM
S7 FM MUTING ON↔OFF
S8 METER
POWER↔SIGNAL
S3 MODE STEREO↔MONO
ME703 TUNING
PL5 STEREO 6V 35mA
Q801 IT22 Q802,803 2SC1634 MUTING DRIVE
S5 HIGH FILTER OFF↔ON
Q701 2SA884 DIFFERENTIAL AMP
Q702 2SA733 CURRENT REG
Q703 2SB646A CLASS-A AMP
Q704 2SD666A CLASS-A AMP
Q705,708,710 2SA733 PROTECTION
Q706,707,709 2SC1364 PROTECTION
Q711 2SD667A CLASS-B DRIVER
Q712 2SB647A CLASS-B DRIVER
Q713 2SD735 POWER AMP
Q714 2SB699 POWER AMP
Q715 2SD667 PROTECTION
D701 MV12N BIAS
D702 SV04F BIAS
D703,704,705 10E1
D706-709 1S1555 PROTECTION
DC BIAS CHECK POINT
DC BIAS
Q751 2SA884
Q752 2SA733
Q753 2SB646A
Q754 2SD666A
Q755,758,760 2SA733
Q756,757,759 2SC1364
Q761 2SD667A
Q762 2SB647A
Q763 2SD735
Q764 2SB699
Q765 2SB647
D751 MV12N
D752 SV04F
D753,754,755 10E1
D756-759 1S1555
[POWER AMP BOARD]
D730,731 IT22
D780,781 IT22
POWER METER CAL
ME751 POWER(R)/SIGNAL
ME701 POWER(L)
S6 SPEAKERS B←OFF→A→A+B
SPEAKER A
SPEAKER B
CNJ3 HEADPHONES
Q901 2SD667
Q902 2SB647
Q903 2SC1634
Q904 2SA733
D901 S5VB RECT
T1 POWER
CP1
S11 POWER
CNJ2 SWITCHED
AC OUTLET
CNJ1 UNSWITCHED
CNP1 AC INPUT 120V 60Hz
F1 5A
F2 1.6A
R1001 1M(1/2W)
[CONTROL BOARD]
Q905 2SC1826 TUNER REG
D902 SIRB10 RECT
D903 EQA01-16R REFERENCE VOLTAGE
[TUNER BOARD]
PL1,2 DIAL (8V 300mA)
PL3,4 METER (8V 300mA)


FE101 FRONT-END SECTION
Q1 FM RF
Q2 FM MIX
Q3 FM OSC
FM IN
L1 FM ANT
L2 FM RF
L3 FM OSC
IFT1 FM IF
FM IF OUT
B+
AM ANT
AM OSC
GROUND

Note:

- Components for right channel have same values as for left channel. Reference numbers are coded from 551, 651, or 751.
- All capacitors are in μF unless otherwise noted. pF = $\mu\mu$F 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼ W unless otherwise noted. kΩ = 1000 Ω, MΩ = 1000 kΩ.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ▭ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation.
- ━━ : B+ bus.
- ─ ─ : B− bus.
- ▭ : adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- Readings are taken under no signal conditions with a VOM (20 kΩ/V).

( ) : AM
[ ] : FM
no mark : common
⟨ ⟩ : FM STEREO
⟪ ⟫ : S3 (MODE) ··········· MONO
S7 (FM MUTING) ······· OFF

- Switch

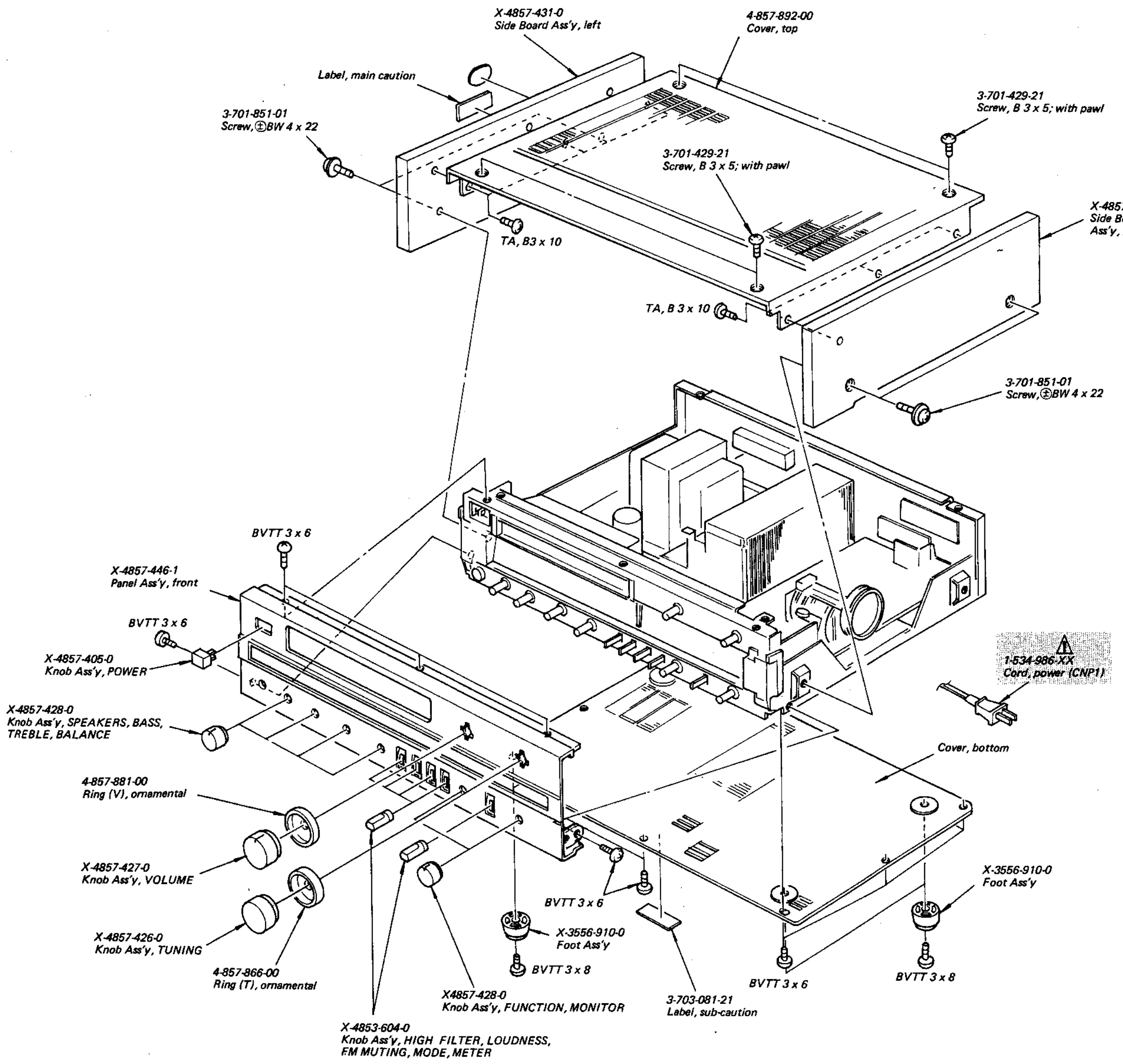
Ref. No.	Switch	Position
S1-1 to 4	FUNCTION	FM
S2-1 to 4	MONITOR	SOURCE
S3-1, 2	MODE	STEREO
S4-1, 2	LOUDNESS	OFF
S5-1, 2	HIGH FILTER	OFF
S6-1 to 4	SPEAKERS	A
S7	FM MUTING	OFF
S8	METER	POWER
S11	POWER	OFF

SECTION 5

EXPLODED VIEWS

A B C

5-1.


1
2
3
4
5
X-4857-431-0
Side Board Ass'y, left
4-857-892-00
Cover, top
Label, main caution
3-701-429-21
Screw, B 3 x 5; with pawl
3-701-851-01
Screw, ⊕BW 4 x 22
3-701-429-21
Screw, B 3 x 5; with pawl
X-4857-432-0
Side Board
Ass'y, right
TA, B3 x 10
TA, B 3 x 10
3-701-851-01
Screw, ⊕BW 4 x 22
BVTT 3 x 6
X-4857-446-1
Panel Ass'y, front
BVTT 3 x 6
X-4857-405-0
Knob Ass'y, POWER
1-534-986-XX
Cord, power (CNP1)
X-4857-428-0
Knob Ass'y, SPEAKERS, BASS, TREBLE, BALANCE
Cover, bottom
4-857-881-00
Ring (V), ornamental
X-4857-427-0
Knob Ass'y, VOLUME
X-3556-910-0
Foot Ass'y
BVTT 3 x 6
X-3556-910-0
Foot Ass'y
X-4857-426-0
Knob Ass'y, TUNING
BVTT 3 x 8
4-857-866-00
Ring (T), ornamental
BVTT 3 x 6
BVTT 3 x 8
X4857-428-0
Knob Ass'y, FUNCTION, MONITOR
3-703-081-21
Label, sub-caution
X-4853-604-0
Knob Ass'y, HIGH FILTER, LOUDNESS, FM MUTING, MODE, METER

Note:

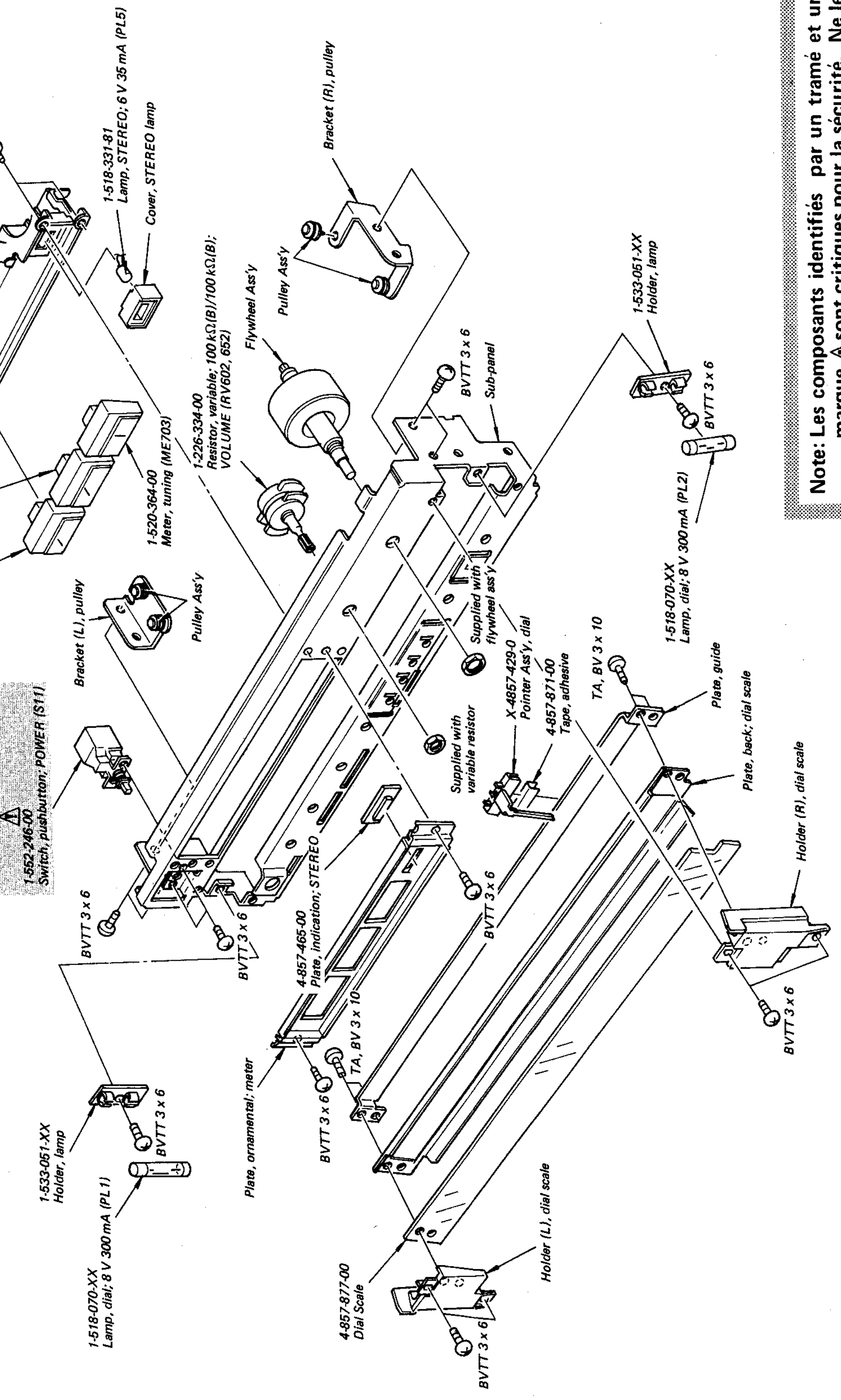
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

A B C D E

5-2.


1
2
3
1-518-347-00
Lamp, meter; 8 V 300 mA (PL3,4)
BVTT 3 x 6
Bracket, meter
BVTT 3 x 6
1-520-361-00
Meter, power-R/signal (ME751)
1-520-362-00
Meter, power-L (ME701)
1-552-246-00
Switch, pushbutton; POWER (S11)
Bracket (L), pulley
1-518-331-81
Lamp, STEREO; 6 V 35 mA (PL5)
Cover, STEREO lamp
1-520-364-00
Meter, tuning (ME703)
1-533-051-XX
Holder, lamp
1-518-070-XX
Lamp, dial; 8 V 300 mA (PL1)
BVTT 3 x 6
BVTT 3 x 6
Pulley Ass'y
1-226-334-00
Resistor, variable; 100 kΩ(B)/100 kΩ(B); VOLUME (RV602, 652)
Flywheel Ass'y
Pulley Ass'y
Bracket (R), pulley
Plate, ornamental; meter
BVTT 3 x 6
4-857-465-00
Plate, indication; STEREO
4-857-877-00
Dial Scale
TA, BV 3 x 10
BVTT 3 x 6
BVTT 3 x 6
Supplied with variable resistor
Supplied with flywheel ass'y
BVTT 3 x 6
Sub-panel
Holder (L), dial scale
X-4857-429-0
Pointer Ass'y, dial
4-857-871-00
Tape, adhesive
TA, BV 3 x 10
1-533-051-XX
Holder, lamp
1-518-070-XX
Lamp, dial; 8 V 300 mA (PL2)
BVTT 3 x 6
Plate, guide
Plate, back; dial scale
BVTT 3 x 6
Holder (R), dial scale

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-

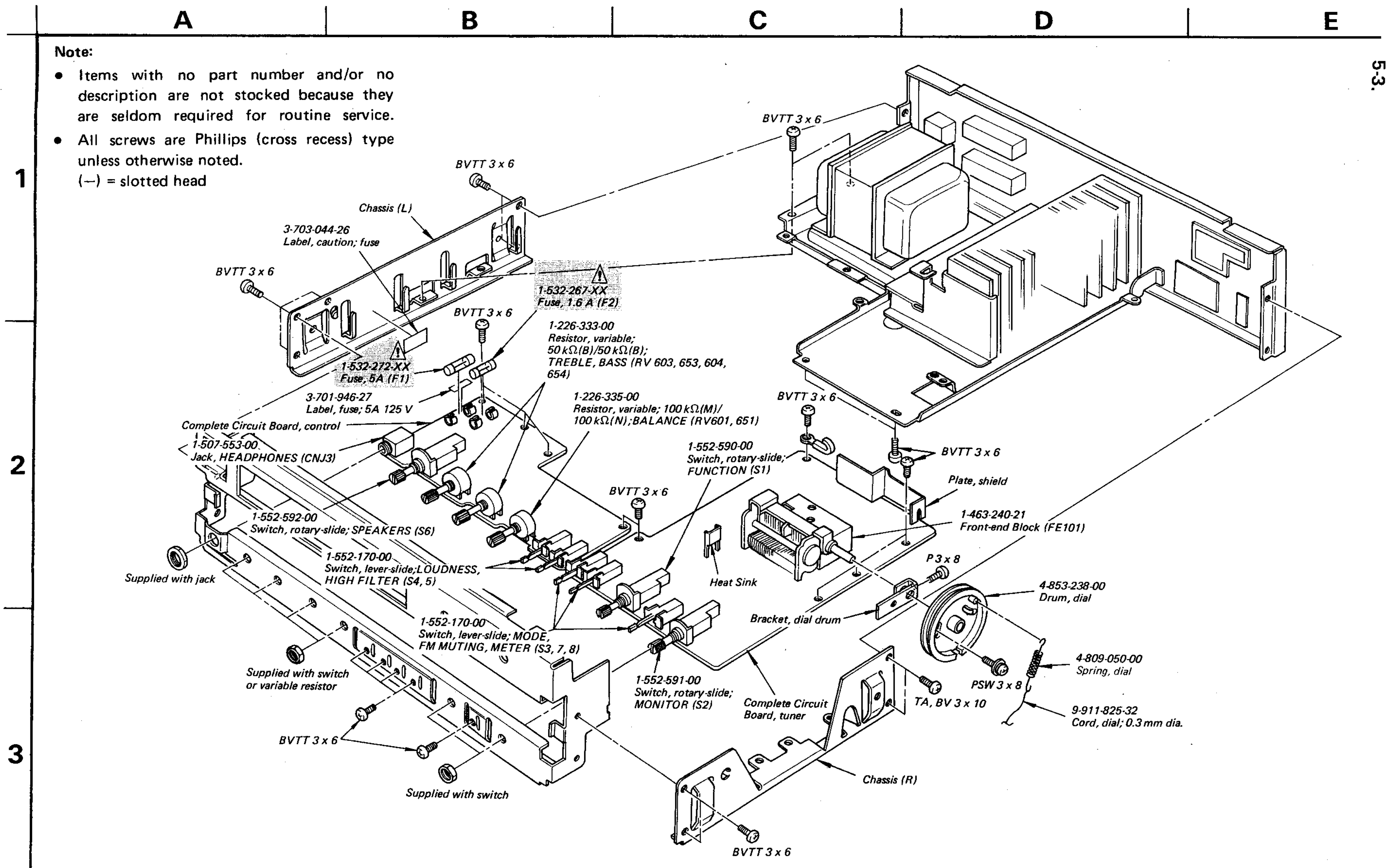
A B C D E

Note:

- Items with no part number and/or no

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head

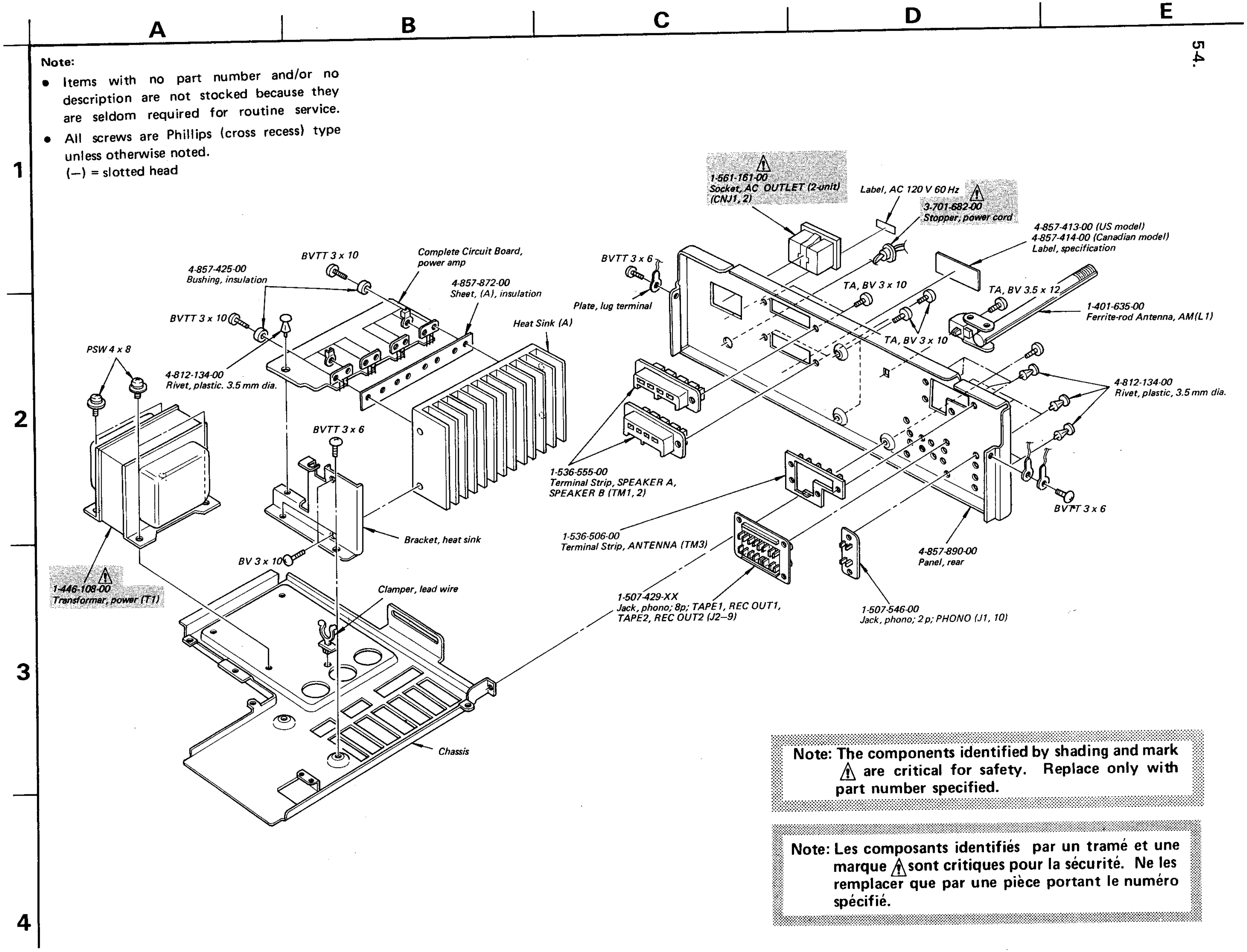

A
B
C
D
E
1
2
3
BVTT 3 x 6
Chassis (L)
3-703-044-26
Label, caution; fuse
BVTT 3 x 6
1-532-267-XX
Fuse, 1.6 A (F2)
BVTT 3 x 6
1-532-272-XX
Fuse, 5A (F1)
1-226-333-00
Resistor, variable;
50 kΩ(B)/50 kΩ(B);
TREBLE, BASS (RV 603, 653, 604, 654)
3-701-946-27
Label, fuse; 5A 125 V
1-226-335-00
Resistor, variable; 100 kΩ(M)/
100 kΩ(N);BALANCE (RV601, 651)
Complete Circuit Board, control
1-507-553-00
Jack, HEADPHONES (CNJ3)
BVTT 3 x 6
1-552-590-00
Switch, rotary-slide;
FUNCTION (S1)
BVTT 3 x 6
Plate, shield
BVTT 3 x 6
1-552-592-00
Switch, rotary-slide; SPEAKERS (S6)
1-463-240-21
Front-end Block (FE101)
Supplied with jack
1-552-170-00
Switch, lever-slide;LOUDNESS,
HIGH FILTER (S4, 5)
Heat Sink
P 3 x 8
4-853-238-00
Drum, dial
Bracket, dial drum
1-552-170-00
Switch, lever-slide; MODE,
FM MUTING, METER (S3, 7, 8)
Supplied with switch
or variable resistor
1-552-591-00
Switch, rotary-slide;
MONITOR (S2)
Complete Circuit
Board, tuner
4-809-050-00
Spring, dial
PSW 3 x 8
TA, BV 3 x 10
9-911-825-32
Cord, dial; 0.3 mm dia.
BVTT 3 x 6
Chassis (R)
Supplied with switch
BVTT 3 x 6

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head


A
B
C
D
E
1
2
3
4
1-561-161-00
Socket, AC OUTLET (2-unit) (CNJ1, 2)
Label, AC 120 V 60 Hz
3-701-682-00
Stopper, power cord
4-857-413-00 (US model)
4-857-414-00 (Canadian model)
Label, specification
BVTT 3 x 6
Plate, lug terminal
TA, BV 3 x 10
TA, BV 3.5 x 12
1-401-635-00
Ferrite-rod Antenna, AM(L1)
TA, BV 3 x 10
4-812-134-00
Rivet, plastic, 3.5 mm dia.
BVTT 3 x 6
BVTT 3 x 10
Complete Circuit Board, power amp
4-857-425-00
Bushing, insulation
4-857-872-00
Sheet, (A), insulation
BVTT 3 x 10
Heat Sink (A)
PSW 4 x 8
4-812-134-00
Rivet, plastic. 3.5 mm dia.
BVTT 3 x 6
1-536-555-00
Terminal Strip, SPEAKER A, SPEAKER B (TM1, 2)
Bracket, heat sink
BV 3 x 10
1-536-506-00
Terminal Strip, ANTENNA (TM3)
4-857-890-00
Panel, rear
1-446-108-00
Transformer, power (T1)
Clamper, lead wire
1-507-429-XX
Jack, phono; 8p; TAPE1, REC OUT1, TAPE2, REC OUT2 (J2–9)
1-507-546-00
Jack, phono; 2p; PHONO (J1, 10)
Chassis

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 6

ELECTRICAL PARTS LIST

SEMICONDUCTORS

Transistors

Ref. No.	*Part No.*	*Description*
Q201	8-729-671-13	2SC710
Q202	8-729-663-47	2SC1364
Q401	8-729-663-47	2SC1364
Q501, 551	8-729-387-27	2SA872
⇒Q502, 552	8-727-788-00	2SA678
⇒Q503, 553	8-729-663-47	2SC1364
⇒Q601, 651	8-727-788-00	2SA678
⇒Q602, 652 ⇒Q603, 653	8-729-663-47	2SC1364
Q701, 751	8-765-020-00	2SA884
⇒Q702, 752	8-727-788-00	2SA678
⇒Q703, 753	8-765-082-20	2SA896
⇒Q704, 754	8-765-012-20	2SC1811
⇒Q705, 755	8-727-788-00	2SA678
Q706, 756 Q707, 757	8-729-663-47	2SC1364
⇒Q708, 758	8-727-788-00	2SA678
Q709, 759	8-729-663-47	2SC1364
⇒Q710, 760	8-727-788-00	2SA678
⇒Q711, 761	8-729-366-71	2SD667
⇒Q712, 762	8-729-364-71	2SB647
Q713, 763	8-729-303-52	2SD735
Q714, 764	8-729-309-92	2SB699
Q715	8-729-366-71	2SD667
Q 765	8-729-364-71	2SB647
⇒Q801, 851 ⇒Q803	8-729-663-47	2SC1364
Q901	8-729-366-71	2SD667
Q902	8-729-364-71	2SB647
⇒Q903	8-729-663-47	2SC1364
⇒Q904	8-727-788-00	2SA678
Q905	8-729-382-62	2SC1826

ICs

Ref. No.	*Part No.*	*Description*
⇒IC201	8-759-310-37	HA1137W
IC301	8-759-311-96	HA1196
IC401	8-759-812-40	LA1240

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Diodes

Ref. No.	*Part No.*	*Description*
D201, 202 D301, 401	8-719-815-55	1S1555
D601, 651	8-719-815-55	1S1555
D701, 751	8-719-912-00	MV12N
⇒D702, 752	8-719-300-11	SV04S
⇒D703, 753 ⇒D705, 755	8-719-200-02	10E2
D706, 756 D709, 759	8-719-815-55	1S1555
⇒D730, 780 ⇒D731, 781	8-719-422-21	1T22AM
⇒D801	8-719-422-21	1T22AM
⇒D901	⚠8-719-505-20	S5VB20
D902	⚠8-719-510-10	S1RB10
⇒D903	8-719-931-16	EQB01-16

COILS

Ref. No.	*Part No.*	*Description*
L1	1-401-635-00	Ferrite-rod Antenna, AM
L2	1-417-014-00	Balun
L201	1-407-741-00	18μH, microinductor
L401	1-407-169-XX	100μH, microinductor

TRANSFORMERS

Ref. No.	*Part No.*	*Description*
CFT401	1-404-086-00	AM IFT
IFT201	1-404-011-00	FM Discriminator
IFT401	1-404-085-00	AM IFT
T1	⚠1-446-108-00	Power
T401	1-405-779-00	AM OSC

CAPACITORS

All capacitors are in μF and ceramic unless otherwise noted. 50 WV or less are not indicated except for electrolytics.
p: $\mu\mu$F, elect: electrolytic

Ref. No.	*Part No.*	*Description*		
C201–203	1-101-005-00	0.022		
C204	1-101-006-00	0.047		
C205	1-121-395-00	4.7	25 V	elect
C206	1-102-112-00	330 p		
C207	1-121-726-00	0.47	50 V	elect

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	*Part No.*	*Description*		
C208	1-121-392-00	3.3	25 V	elect
C209, 210	1-101-006-00	0.047		
C211, 212	1-101-005-00	0.022		
C213	1-121-450-00	2.2	50 V	elect
C214	1-121-409-00	47	16 V	elect
C215, 216	1-101-005-00	0.022		
C301	1-102-107-00	120 p		
C302	1-121-409-00	47	16 V	elect
C303	1-104-065-00	330 p		styrol
C304	1-108-246-00	0.047		mylar
C305, 306	1-121-651-00	10	16 V	elect
C307	1-121-392-00	3.3	25 V	elect
C308	1-121-391-00	1	50 V	elect
C309	1-131-451-00	0.1	16 V	tantalum
C310, 311	1-121-391-00	1	50 V	elect
C312, 313	1-108-356-00	0.0082		mylar
C401	1-108-242-00	0.022		mylar
C402	1-101-005-00	0.022		
C403	1-102-949-00	12 p		
C404	1-104-065-00	330 p		styrol
C405–407	1-101-005-00	0.022		
C408	1-121-479-00	22	16 V	elect
C409	1-108-227-00	0.001		mylar
C410	1-121-479-00	22	16 V	elect
C411	1-108-246-00	0.047		mylar
C412	1-121-395-00	4.7	25 V	elect
C413	1-108-227-00	0.001		mylar
C414	1-101-005-00	0.022		
C415	1-121-392-00	3.3	25 V	elect
C416	1-121-409-00	47	16 V	elect
C417, 418	1-108-244-00	0.033		mylar
C419	1-108-242-00	0.022		mylar
C420	1-121-392-00	3.3	25 V	elect
C421	1-121-414-00	100	6.3 V	elect
C501, 551	1-121-915-00	4.7	25 V	elect
C502, 552	1-101-884-00	56 p		
C503 553	1-121-651-00	10	16 V	elect
C504, 554	1-108-355-00	0.0056		mylar
C505, 555	1-108-352-00	0.0018		mylar
C506, 556	1-121-420-00	220	10 V	elect
C507, 557	1-121-392-00	3.3	25 V	elect
C601, 651	1-108-246-00	0.047		mylar
C602, 652	1-102-824-00	470 p		
C603, 653	1-121-651-00	10	16 V	elect
C604, 654	1-121-479-00	22	16 V	elect
C605, 655	1-121-392-00	3.3	25 V	elect
C606, 656 C607, 657	1-108-246-00	0.047		mylar
C608, 658	1-108-228-00	0.0015		mylar
C609, 659	1-121-392-00	3.3	25 V	elect
C610, 660	1-101-361-00	150 p		
C611, 661	1-121-450-00	2.2	50 V	elect
C612, 662	1-121-414-00	100	10 V	elect
C613, 663	1-108-577-00	0.0082		mylar
C702, 752	1-121-450-00	2.2	50 V	elect
C703, 753	1-108-246-00	0.047		mylar
C704, 754	1-121-479-00	22	16 V	elect
C705, 755 C706, 756	1-102-942-00	5 p		
C707, 757 C708, 758	1-121-479-00	22	16 V	elect
C709, 759	1-108-244-00	0.033		mylar
C710	1-121-420-00	220	10 V	elect
C730, 780	1-121-395-00	4.7	25 V	elect
C731	1-121-414-00	100	10 V	elect
C 781	1-121-413-00	100	6.3 V	elect
C801	1-121-738-00	10	50 V	elect
C802	1-121-414-00	100	10 V	elect
C803	1-121-396-00	4.7	50 V	elect
C901–904 ⚠	1-108-389-00	0.1	100 V	mylar
C905, 906 ⚠	1-123-257-00	10000	50 V	elect
C907, 908	1-121-422-00	220	25 V	elect
C909, 910	1-108-355-00	0.0056		mylar
C911, 912	1-121-392-00	3.3	25 V	elect
C913, 914	1-121-935-00	100	25 V	elect
C915, 916 ⚠	1-102-355-00	0.01	500 V x 2	

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	*Part No.*	*Description*		
C917	⚠1-121-940-00	470	25 V	elect
C918	1-121-410-00	47	25 V	elect
C919	1-121-415-00	100	16 V	elect

RESISTORS

All resistors are in ohms. Common ¼ W carbon resistors are omitted. Refer to the list on the last page for their part numbers.
All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
kΩ: 1000 Ω; MΩ: 1000 kΩ

Ref. No.	*Part No.*	*Description*		
R314	1-244-859-00	270	½ W	carbon
R401	1-244-891-00	5.6 k	½ W	carbon
R703, 753 R704, 754	⚠1-211-551-00	2 k	¼ W	carbon (nonflammable)
R707, 757	1-244-906-00	24 k	½ W	carbon
R709, 759 R710, 760	⚠1-211-526-00	150	¼ W	carbon (nonflammable)
R712, 762 R715, 765	⚠1-211-514-00	47	¼ W	carbon (nonflammable)
R716, 766 R717, 767	⚠1-211-538-00	470	¼ W	carbon (nonflammable)
R725, 775 R726, 776	⚠1-217-158-00	0.47	5 W	metal oxide
R727, 777	1-244-825-00	10	½ W	carbon
R728, 778	1-244-817-00	4.7	½ W	carbon
R729, 779	⚠1-206-656-00	470	2 W	metal oxide
R730, 780	1-244-865-00	470	½ W	carbon
R731, 781	1-244-877-00	1.5 k	½ W	carbon
R732, 782	1-244-873-00	1 k	½ W	carbon
R903, 904	⚠1-211-522-00	100	¼ W	carbon (nonflammable)
R910	⚠1-206-502-00	4.3	3 W	metal oxide
R911	⚠1-211-590-00	10	½ W	carbon (nonflammable)
R1001	1-202-719-00	1 M	½ W	composition
RT201	1-224-646-XX	22 k, adjustable; signal meter calibration		
RT301	1-224-645-XX	10 k, adjustable; VCO		
RT302	1-224-647-XX	47 k, adjustable; FM stereo separation		
RV601, 651	1-226-335-00	100 k (M)/100 k (N), variable; BALANCE		
RV602, 652	1-226-334-00	100 k/100 k, variable; VOLUME		
RV603, 653 RV604, 654	1-226-333-00	50 k/50 k, variable; TREBLE, BASS		
RV701, 751	1-224-253-XX	22 k, adjustable; dc bias		
RV730, 780	1-224-250-XX	2.2 k, adjustable; power meter calibration		

SWITCHES

Ref. No.	*Part No.*	*Description*
S1	1-552-590-00	Rotary-slide, FUNCTION
S2	1-552-591-00	Rotary-slide, MONITOR
S3–5	1-552-170-00	Lever-slide, MODE, LOUDNESS, HIGH FILTER
S6	1-552-592-00	Rotary-slide, SPEAKERS
S7, 8	1-552-170-00	Lever-slide, FM MUTING, METER
S11	⚠1-552-246-00	Pushbutton, POWER

JACKS

Ref. No.	*Part No.*	*Description*
CNJ3	1-507-553-00	HEADPHONES
J1, 10	1-507-546-00	Phono, 2 p; PHONO
J2–9	1-507-429-XX	Phono, 8 p: TAPE1, REC OUT1, TAPE2, REC OUT 2

MISCELLANEOUS

Ref. No.	*Part No.*	*Description*
CF201, 202	1-527-307-XX	Filter, ceramic
CNJ1, 2	⚠1-561-161-00	Socket, AC OUTLET (2-unit)
CNP1	⚠1-534-986-XX	Cord, power
CP1	⚠1-231-326-11	Encapsulated Component (US model)
	⚠1-231-341-11	Encapsulated Component (Canadian model)
F1	⚠1-532-272-XX	Fuse, 5A
F2	⚠1-532-267-XX	Fuse, 1.6A
FE101	1-463-240-21	Front-end Block
LPF301, 302	1-231-224-00	Filter, low-pass
ME701	1-520-362-00	Meter, power (L)
ME703	1-520-364-00	Meter, tuning
ME751	1-520-361-00	Meter, power (R)/signal

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	*Part No.*	*Description*
PL1, 2	1-518-070-XX	Lamp, dial; 8 V 300 mA
PL3, 4	1-518-347-00	Lamp, meter; 8 V 300 mA
PL5	1-518-331-81	Lamp, STEREO; 6 V 35 mA
TM1, 2	1-536-555-00	Terminal Strip, SPEAKER A, SPEAKER B
TM3	1-536-506-00	Terminal Strip, ANTENNA
	1-533-051-XX	Holder, lamp

ACCESSORIES & PACKING MATERIALS

Part No.	*Description*
1-501-161-00	Antenna, feeder
3-701-020-00	Bag, check sheet
3-770-591-21	Manual, instruction (US model)
3-770-591-21 3-794-292-31	Manual, instruction (Canadian model)
3-794-233-21	Sheet, consumer products (US model)
4-857-899-00	Carton
4-859-501-00	Cushion
4-859-507-00	Bag, protection

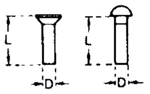
1/4 WATT CARBON RESISTORS

Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw: – P 3 x 10

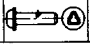
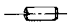
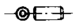
- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
- *Indicated slotted-head only. Unless otherwise indicated, it means cross-recessed head (Phillips type).*



Nut, Washer, Retaining ring: N 3

- *Diameter of usable screw or shaft*
- *Reference designation*

Reference Designation	Shape	Description	Remarks
		SCREWS	
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
		SELF-TAPPING SCREWS	
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
		SET SCREWS	
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
		NUT	
N		nut	
		WASHERS	
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
		RETAINING RINGS	
E		retaining ring	
G		grip-type retaining ring	

Sony Corporation

© 1978

9-958-534-01

78K0541-1
Printed in Japan